

866
865
No. 2390

United States

Circuit Court of Appeals

For the Ninth Circuit.

Transcript of Record.

(IN THREE VOLUMES.)

STEWART MINING COMPANY, a Corporation,
Appellant,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,
Appellees.


VOLUME I.

(Pages 1 to 320, Inclusive.)

Upon Appeal from the United States District Court
for the District of Idaho, Northern Division.

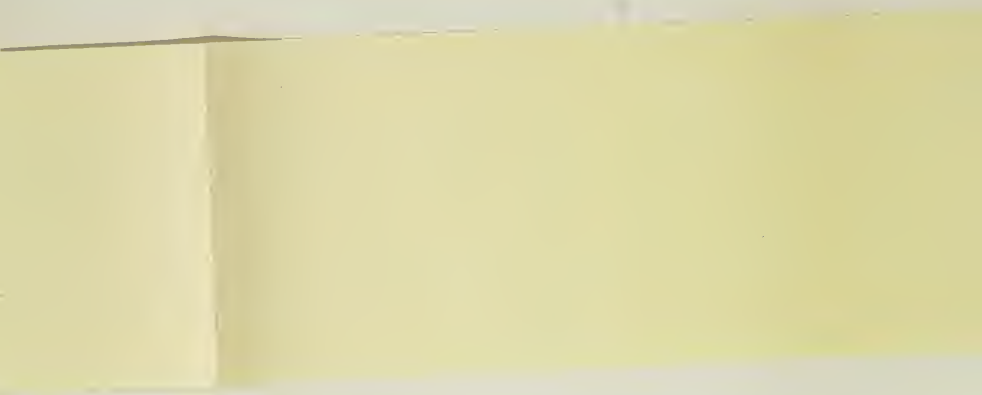
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866



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[Clerk's Note: When deemed likely to be of an important nature, errors or doubtful matters appearing in the original certified record are printed literally in italic; and, likewise, cancelled matter appearing in the original certified record is printed and cancelled herein accordingly. When possible, an omission from the text is indicated by printing in italic the two words between which the omission seems to occur. Title heads inserted by the Clerk are enclosed within brackets.]

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[Names and Addresses of Attorneys.]

CULLEN, LEE & MATTHEWS, Spokane, Washington,

GUNN, RASCH & HALL, Helena, Montana,
Solicitors for Appellant.

CURTIS H. LINDLEY, San Francisco, California,
MYRON A. FOLSOM, Spokane, Washington,
Solicitors for Respondents.

*In the District Court of the United States, District
of Idaho, Northern Division, Holding Terms at
Coeur d'Alene.*

STEWART MINING COMPANY, a Corporation,
Complainant,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,
Defendants.

Bill of Complaint.

To the Honorable, the Judge of the District Court of
the United States, District of Idaho, Northern
Division:

The Stewart Mining Company, a corporation created and existing under and by virtue of the laws of the State of Idaho, brings this, its bill of complaint, against the defendant, Jonathan Bourne, Jr., a resident and citizen of the State of Oregon, and thereupon your orator complains and alleges:

I.

That your orator is now, and at all times since the

year 1902 has been, a corporation duly organized and existing under and by virtue of the laws of the State of Idaho, and a resident and citizen of such State, and authorized and empowered to own, possess and enjoy the mining claim and property hereinafter described.

II.

That the defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, are residents and citizens of the State of Oregon. [1*]

III.

That your orator is now, and for a long time hitherto has been, the owner in fee, in possession of, and entitled to the possession of, that certain quartz lode mining claim situated in Yreka Mining District, Shoshone County, Idaho, known and designated the Senator Stewart Fraction lode mining claim, and of all veins, lodes and ledges throughout their entire depth, the tops or apexes of which lie inside of the surface lines of said mining claim extended down vertically, although such veins, lodes or ledges may so far depart from a perpendicular in their course downward as to extend outside of the vertical side lines of the said claim, which said mining claim is particularly described in the United States Patent issued therefor as follows:

BEGINNING at corner No. 1, from which the corner common to Sections one (1), two (2), eleven (11) and twelve (12) of Township forty-eight (48) North, Range two (2) East, B. M., bears north eighty-six (86) degrees, eleven (11)

*Page-number appearing at foot of page of original certified Record.

minutes thirty (30) seconds west, three hundred twenty and thirty-eight hundredths (320.38) feet; thence south twenty-four (24) degrees, thirty-eight (38) minutes west, six hundred (600) feet to corner No. 2; thence north sixty-three (63) degrees, fifty-five (55) minutes west, thirteen hundred eighty-five and four-tenths (1385.4) feet to corner No. 3; thence north twenty-four (24) degrees, thirty-eight (38) minutes east, five hundred (500) feet to corner No. 4; thence south sixty-eight (68) degrees three (3) minutes east, thirteen hundred eighty-six and forty-seven hundredths (1386.47) feet to place of beginning, containing an area of sixteen and one hundred and ninety-six thousandths (16.196) acres, more or less.

That within said Senator Stewart Fraction quartz lode mining claim is a certain vein or lode bearing silver, lead and other valuable minerals, the top or apex of which vein or lode crosses the easterly end line of said claim at approximately the center thereof between corners Nos. 1 and 2 and extends within the boundaries of said claim in a westerly direction, following the general course of said claim, for a distance of seven hundred five (705) feet, more or less. [2]

That said vein or lode has a downward course and descends into the earth southerly and beyond the south boundary and side line of said claim into and beneath the surface of the Ontario quartz lode mining claim designated as Survey No. 755, and described in the U. S. Patent issued therefor as fol-

lows: Beginning at corner No. 1, Lot 64, Survey 755, from whence U. S. Mineral Monument No. 1 Yreka Mining District, Shoshone County, Idaho, bears North $75^{\circ} 53' 49''$ West 4981.1 distant. Thence North $50^{\circ} 33'$ East 640 feet to No. 2; thence South $67^{\circ} 46' 30''$ East 773.3 feet to corner No. 3; thence South $50^{\circ} 33'$ West 647 feet to corner No. 4; thence North $67^{\circ} 19'$ West 770 to corner No. 1.

IV.

Your orator further avers that for many years last past your orator has been, and is now, the owner in fee, in the possession of, and entitled to the possession of, said vein or lode, the top or apex of which is within said Senator Stewart Fraction claim, as aforesaid, between a vertical plane drawn downward through the east end line of said claim, extended southerly in its own direction indefinitely, and a vertical plane drawn downward through a line seven hundred five (705) feet westerly from said east end line, and parallel thereto, extended as aforesaid.

V.

Your orator further avers that the defendants are the owners or claim to be the owners of the said Ontario quartz lode mining claim, situated in Yreka, Shoshone County, Idaho, about two hundred (200) feet southerly from said Senator Stewart Fraction mining claim, claim an estate or interest adverse to complainant [3] in and to that part of said vein or lode having its apex within the boundaries of the Senator Stewart Fraction lode mining claim, as aforesaid, beneath the said Ontario claim, which part is between the planes aforesaid.

VI.

Your orator further avers that the claim of the said defendants is false and groundless, and without any right whatever, and constitutes a cloud upon your orator's title thereto. That the said defendants have no right, title, estate or interest whatever in or to said vein or lode, or any part thereof.

VII.

Your orator further avers that that portion of said vein or lode to which said defendants wrongfully assert title and claim, as herein alleged, exceeds in value the sum of one hundred thousand dollars (\$100,000), exclusive of interest and costs.

VIII.

That your orator has no plain, speedy or adequate remedy in the ordinary course of law.

IN CONSIDERATION WHEREOF, and forasmuch as your orator is entirely remediless in the premises at and according to the strict rules of the common law, and can secure relief only in a court of equity where matters of this nature are properly cognizable and reviewable, and to the end that defendants may appear and answer to all and singular the matters in this bill of complaint, but not under oath, an answer under oath being hereby expressly waived, your orator prays that said defendants may be made to set forth the nature of their claim, and that all adverse claims of said defendants may be determined by the decree of this [4] Court, and that by said decree it be declared and adjudged that said defendants have not any estate or interest whatsoever in or to said vein or lode, or any portion

thereof, between the planes above described, and that by said decree it be declared and adjudged that the title of your orator thereto is good and valid, and that said defendants be enjoined and forever restrained from asserting any claim whatsoever in or to said vein or lode between said planes.

May it please your Honor to grant unto your orator a writ of subpoena of the United States of America, directed to said defendant, commanding him to appear on a date certain and answer unto this bill of complaint, and to abide by and perform the order and decree of this Court.

STEWART MINING COMPANY.

By E. H. WILSON,

Vice-president.

GUNN, RASCH & HALL,

HAPPY, CULLEN, LEE & HINDMAN,

Solicitors for Complainant. [5]

State of Washington,
County of Spokane,—ss.

E. H. Wilson, being first duly sworn, deposes and says that he is an officer of the complainant above-named, to wit, its vice-president, that he has read the above and foregoing bill of complaint and knows the contents thereof, and that the same is true of his own knowledge, except as to matters therein stated upon information and belief, and as to those matters that he believes it to be true.

E. H. WILSON.

Jonathan Bourne, Jr., and Lillian E. Bourne. 7

Subscribed and sworn to before me this 3d day of
October, 1912.

[Notarial Seal]

W. E. CULLEN, Jr.,
Notary Public.

[Endorsed]: Filed October 3, 1912. A. L. Richardson, Clerk. By Lawrence M. Larson, Deputy Clerk. [6]

*In the District Court of the United States, for the
Northern Division of the District of Idaho.*

IN EQUITY—No. 558.

STEWART MINING COMPANY, a Corporation,
Complainant,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,

Defendants.

Subpoena ad Respondendum.

The President of the United States of America, to
Jonathan Bourne, Jr., and Lillian E. Bourne,
His Wife, Greeting:

You and each of you are hereby commanded that
you be and appear in said District Court of the
United States, at the courtroom thereof, in Coeur
d'Alene, in said District, on the first Monday of
November next, which will be the 4th day of November,
A. D. 1912, to answer the exigency of a Bill of
Complaint exhibited and filed against you in our said
court, wherein Stewart Mining Company, a corporation,
is complainant and you are defendants, and

further to do and receive what our said Circuit Court shall consider in this behalf, and this you are in no wise to omit under the pains and penalties of what may befall thereon.

And this is to COMMAND you the MARSHAL of said District, or your DEPUTY, to make due service of this our WRIT of SUBPOENA and to have then and there the same.

Hereof not fail.

WITNESS the Honorable FRANK S. DIE-TRICH, Judge of the District Court of the United States, and the Seal of our said Court affixed at Boise in said District, this 9th day of October, in the year of our Lord One Thousand Nine Hundred and Twelve and of the Independence of the United States the One Hundred and Thirty-seventh.

[Seal]

A. L. RICHARDSON,

Clerk.

MEMORANDUM PURSUANT TO EQUITY
RULE NO. 12 OF THE SUPREME COURT
OF THE UNITED STATES.

The defendant is to enter his appearance in the above-entitled suit in the office of the Clerk of said court on or before the day at which the above Writ is returnable; otherwise the Complainant's Bill therein may be taken *pro confesso*.

I hereby certify that I received the within *subpoena ad respondendum* at Boise, Idaho, on Oct. 9, 1912, and that after due search and diligent inquiry I am unable to find Jonathan Bourne, Jr., or Lillian E.

Bourne, his wife, within the District of Idaho.

S. L. HODGEN,

U. S. Marshal.

By Jno. Jackson,

Deputy.

Boise, Idaho, Nov. 1, 1912.

[Endorsed]: No. 558. In the District Court of the United States for the Northern Division of the District of Idaho. In Equity. Stewart Mining Co., a Corporation, vs. Jonathan Bourne, Jr., et ux. Subpoena ad Respondendum. Returned and filed Nov. 1, 1912. A. L. Richardson, Clerk. By ———, Deputy Clerk.

H. Civ. 531. 10/9/12. [7]

In the District Court of the United States, District of Idaho, Northern Division, Holding Terms at Coeur d'Alene.

STEWART MINING COMPANY,

Plaintiff,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,

Defendants.

Application for Warning Order.

Comes now the Stewart Mining Company, the complainant in the above-entitled action, and shows to this Honorable Court that on the 3d day of October, A. D. 1912, it brought the above-entitled action in this court alleging that it was the owner, in posses-

sion of, and entitled to the possession of that certain quartz lode mining claim, situate in Yreka Mining District, Shoshone County, Idaho, known as the Senator Stewart Fraction quartz lode mining claim, and of all veins, lodes and ledges throughout their entire depth, the tops or apices of which lie inside of the surface lines of said mining claim extended downward vertically, although such veins, lodes or ledges may so far depart from a perpendicular in their course downward as to extend outside of the vertical side lines of the said claim, and that within said Senator Stewart Fraction quartz lode mining claim there is a certain vein or lode bearing silver, lead and other valuable minerals, the top or apex of which vein or lode crosses the easterly end line of said claim at approximately the center thereof between corners Nos. 1 and 2 and extends within the boundaries of said claim in a westerly direction, following the general [8] course of said claim, for a distance of seven hundred five (705) feet, and that said vein or lode has a downward course and descends into the earth southerly and beyond the south boundary and side line of said claim into and beneath the surface of the Ontario quartz lode mining claim, designated as United States Mineral Survey No. 755, owned by said defendants, and this complainant seeks in said action to quiet its title to that portion of said vein passing beneath the Ontario quartz lode mining claim, which latter mining claim is owned and claimed by said defendants, which has its top or apex within the said Senator Stewart Fraction quartz lode mining claim, being that portion of said vein lying between a vertical plane drawn

downward through the east end line of said Senator Stewart Fraction quartz lode mining claim, extended southerly in its own direction indefinitely, throughout the said Ontario quartz lode mining claim, and a vertical plane drawn downward through a line seven hundred five (705) feet westerly from said east end line, and parallel thereto, extended as aforesaid; that the said defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, are not residents or citizens of the State of Idaho, and cannot be found therein, but are citizens and residents of the State of Oregon, residing at the City of Portland in said State, and have not voluntarily appeared in said cause to answer, plead, or demur to the bill filed by complainant; that complainant is a corporation organized and existing under and by virtue of the laws of the State of Idaho, having its principal office and place of business at the town of Kellogg, in said State.

WHEREFORE, complainant moves this Court that its warning order be granted, entered and served as provided by law, directing [9] the defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, to appear, plead, demur or answer in said cause, by a day certain to be fixed by this Court.

STEWART MINING COMPANY.

By HAPPY, CULLEN, LEE & HINDMAN,

Its Solicitors.

State of Washington,
County of Spokane,—ss.

W. E. Cullen, being duly sworn, says that he is one of the attorneys for the above-named plaintiff; that

he has read the foregoing application for warning order, knows the contents thereof, and that the same is true as he verily believes.

W. E. CULLEN.

Subscribed and sworn to before me this 30th day of October, 1912.

[Notarial Seal] B. A. HOFFINE,
Notary Public in and for the State of Washington,
Residing at Spokane. [10]

*In the District Court of the United States, for the
District of Idaho, Northern Division, Holding
Terms at Coeur d'Alene.*

STEWART MINING COMPANY, a Corporation,
Complainant,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,
Defendants.

Affidavit of W. E. Cullen.

United States of America,
State of Washington,
County of Spokane,—ss.

W. E. Cullen, being duly sworn, deposes and says: That he is one of the solicitors for the above-named complainant, the Stewart Mining Company, and makes this affidavit in its behalf; that the above-entitled action, as appears by the files of this court, was commenced on the 3d day of October, 1912, by the above-named complainant against the above-

named defendants for the purpose of quieting title to and removal of a cloud upon the title of complainant to the Ontario quartz lode mining claim, being Mineral Survey #755, situate, lying and being in Yreka Mining District, Shoshone County, Idaho; that said affiant caused a bill of subpoena to be issued and placed in the hands of the Marshal for service in due course, and the said subpoena has been returned by the Marshal of this court, to the effect that the said defendants cannot be found within this District, and are not residents of the State of Idaho; affiant further says that the said defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, are citizens and residents of the State of [11] Oregon, residing at the city of Portland, in said State, and cannot be found within the said District, or within the State of Idaho, and have not voluntarily appeared in this cause.

W. E. CULLEN.

Subscribed and sworn to before me this 30th day of October, A. D. 1912.

[Notarial Seal]

B. A. HOFFINE,

Notary Public in and for the State of Washington,
Residing at Spokane, Wash.

[Endorsed]: Filed, November 1, 1912. A. L. Richardson, Clerk. [12]

*In the District Court of the United States, District
of Idaho, Northern Division, Holding Terms at
Coeur d'Alene.*

STEWART MINING COMPANY,

Plaintiff,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,

Defendants.

Warning Order.

On this 1st day of November, A. D. 1912, came on to be heard the application of the Stewart Mining Company, the above-named complainant, for an order directing the defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, to appear, plead, answer or demur in said cause by a day certain to be designated by the Court, and it appearing to the Court that this suit was commenced by the said complainant as stated in its application for said order, and as stated in said complaint and filed on file in said cause, to quiet the title to a certain vein of mineral bearing rock situated in Yreka Mining District, in the county of Shoshone, and State of Idaho, the said complainant alleging in said bill of complaint that it is the owner of, in possession of, and entitled to the possession of that certain quartz lode mining claim situate in Yreka Mining District, Shoshone County, Idaho, known as the Senator Stewart Fraction quartz lode mining claim, and of all veins, lodes and ledges throughout their entire depth, the tops

or apices of which lie inside of the surface lines of said mining claim extended downward vertically, although such veins, lodes or ledges may so [13] far depart from a perpendicular in their course downward as to extend outside of the vertical side lines of the said claim, and that within said Senator Stewart Fraction quartz lode mining claim there is a certain vein or lode bearing silver, lead and other valuable minerals, the top or apex of which vein or lode crosses the easterly end line of said claim at approximately the center thereof between corners Nos. 1 and 2 and extends within the boundaries of said claim in a westerly direction, following the general course of said claim, for a distance of seven hundred five (705) feet, and that said vein or lode has a downward course and descends into the earth southerly and beyond the south boundary and side line of said claim into and beneath the surface of the Ontario quartz lode mining claim, designated as United States Mineral Survey No. 755 owned by said defendants, and this complainant seeks in said action to quiet its title to that portion of said vein passing beneath the Ontario quartz lode mining claim, which latter mining claim is owned and claimed by said defendants, which has its top or apex within the said Senator Stewart Fraction quartz lode mining claim, being that portion of said vein lying between a vertical plane drawn downward through the east end line of said Senator Stewart Fraction quartz lode mining claim, extended southerly in its own direction indefinitely, throughout the said Ontario quartz lode mining claim, and a vertical plane drawn down-

ward through a line seven hundred five (705) feet westerly from said east end line, and parallel thereto, extended as aforesaid; and to quiet the title to all of the said veins within the plane aforesaid, beneath the surface of the said Ontario quartz lode mining claim; and it further appearing to the said Court that the said defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, are not inhabitants of the said District of Idaho, nor are to be found [14] in said State of Idaho, nor have they voluntarily, or has either of them voluntarily, appeared in said suit; and the Court being of the opinion that said application should be granted;

IT IS ORDERED that the said Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, and each of them, defendants as above named, shall appear, plead, answer, or demur to the bill of complaint on file herein on or before the 2d day of December, A. D. 1912, providing this order shall have been duly served upon said defendants, or either of them, at least twenty days before said date of appearance.

AND IT IS FURTHER ORDERED that certified copies of this order and of complainant's bill of complaint be served upon the said Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, and each of them on or before twenty days before the date above named, and that service be made on the said Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, by the United States Marshal for the District of Oregon, or for such other District as the defendants, or either, or both of them, may happen to be in.

Done in open court in the city of Boise, Idaho, this 1st day of November, A. D. 1912.

FRANK S. DIETRICH,
Judge. [15]

United States Marshal's Office,
District of Oregon.

I hereby certify and return that I received the within writ, Warning Order, on the 4th day of November, 1912, and personally served the same on the 6th day of November, 1912, on Lillian E. Bourne, wife of Jonathan Bourne, Jr., by delivering to and leaving with said Jonathan Bourne, Jr., who is the husband of said defendant named therein, at Portland, County of Multnomah in said District, an attested copy thereof, at the Portland Hotel, Room #412, one of said defendants herein, together with a copy of application for warning order, also copy of bill of complaint in the within-entitled action, and for a further return the said Jonathan Bourne, Jr., agreed to accept service on said writ on behalf of defendant Lillian E. Bourne.

LESLIE M. SCOTT,
U. S. Marshal.
By W. B. Griffith,
Deputy.

Portland, Oregon, November 6th, 1912.

Return on Service of Writ.

United States of America,
District of Oregon,—ss.

I hereby certify and return that I served the annexed Warning Order on the therein named Jona-

than Bourne, Jr., by handing to and leaving a true and correct copy thereof, together with copy of application for Warning Order, also Bill of Complaint, with him personally at Portland in said District on the 4th day of November, A. D. 1912.

LESLIE M. SCOTT,

U. S. Marshal.

By W. B. Griffith,

Deputy.

[Endorsed]: Filed, Nov. 1, 1912. A. L. Richardson, Clerk. [16]

*In the District Court of the United States for the
District of Idaho, Northern Division.*

STEWART MINING COMPANY, a Corporation,
Plaintiff,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,

Defendants.

Appearance of Defendants.

To the Clerk of the Above-entitled Court:

Please enter the appearance of the defendants, Jonathan Bourne, Jr., and Lillian E. Bourne, and the appearance of Myron A. Folsom, as solicitor and counsel for the defendants; said entry to be made as of December 2d, 1912.

MYRON A. FOLSOM,

1117 Paulson Bldg., Spokane, Wn.

[Endorsed]: Filed December 4, 1912. A. L. Richardson, Clerk. [17]

*In the District Court of the United States, District
of Idaho, Northern Division.*

STEWART MINING COMPANY, a Corporation,
Complainant,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,

Defendants.

Answer.

The defendants Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, answer the complaint as follows:

I.

Said defendants admit paragraph one of the complaint.

II.

Said defendants admit paragraph two of the complaint.

III.

Said defendants admit that the complainant is the owner of the Stewart Fraction quartz lode mining claim, situated in Yreka Mining District, Shoshone County, Idaho; but said defendants deny that said Stewart Fraction lode mining claim is correctly described in paragraph three of the complaint. Said defendants allege that the said patent expressly excepts a portion of the ground in conflict with the Quaker lode mining claim, which said ground is embraced within the exterior lines of the said Stewart

Fraction lode mining claim. Said defendants deny that the top or apex of any vein within the Stewart Fraction lode mining claim crosses the easterly end line of said claim and deny that any vein within the said claim extends in a westerly direction from the east end [18] line following the general course of the claim for a distance of seven hundred and five feet or for any distance whatsoever. Said defendants deny that any vein within the Stewart Fraction lode mining claim has a downward course southerly; and deny that any vein having its top or apex within the Stewart Fraction lode mining claim passes on its downward course beneath the surface of the Ontario quartz lode mining claim described in paragraph three of the complaint.

IV.

Said defendants deny that the complainant is now or ever has been the owner or in the possession or entitled to the possession of any vein having its apex within the Stewart Fraction lode mining claim, or of any vein which on its downward course passes between a vertical plane drawn downward through the east end line of the said claim and extends southerly in its own direction, and a vertical plane drawn downward vertically seven hundred feet westerly from said east end line and parallel thereto.

V.

Said defendants admit that Jonathan Bourne, Jr., is the owner of the Ontario lode mining claim described in the complaint; and admit that they claim to own all veins and ore bodies which lie beneath the surface of the Ontario lode mining claim, or which

have their tops or apexes within the said Ontario lode mining claim.

VI.

Said defendants deny that their claim of title to said ore bodies is false or groundless or without any right, or that it constitutes a cloud upon complainant's title. Said defendants allege that said Ontario lode mining claim was located November 1, 1895, and since prior to the year 1890, Jonathan Bourne, Jr., has been the owner of the said claim, and entitled to the possession [19] thereof and in the possession continuously from the year 1892, when he received a patent from the United States to the same, until about May 1, 1911, when he executed a lease of the said claim to Stanly A. Easton, since which time said Bourne has remained the owner of said claim, but the said Stanly A. Easton and his assignee, the Ontario Mining Company, have been in possession of the said claim under and by virtue of the lease aforesaid.

And for further answer to the said bill of complaint said defendants allege as follows:

1. That for many years prior to May 1, 1911, said defendant Jonathan Bourne, Jr., was the owner in possession and entitled to the possession of the Ontario lode mining claim situated in Yreka Mining District, Shoshone County, State of Idaho, described in the complaint herein.

2. That on or about May 1, 1911, said Jonathan Bourne, Jr., and Lillian E. Bourne, his wife, made, executed and delivered to Stanly A. Easton a certain lease for the said Ontario lode mining claim with the

right to work the mine and extract ores therefrom. Thereafter the said Easton, with the consent of the said Bourne, assigned the said lease to the Ontario Mining Company, a corporation organized under the laws of Idaho, and the said Ontario Mining Company entered into possession of said Ontario lode mining claim, proceeded to develop and operate said mining claim as a mine, and extracted and removed ores therefrom.

3. That sometime about October 1, 1912, while the said Ontario Mining Company under and by virtue of said lease was so operating and mining the said ores contained in said mining claim, the Stewart Mining Company, complainant herein, commenced action in the District Court of the First Judicial District of the State of Idaho in and for the County of Shoshone, the Court [20] having jurisdiction over the parties, against the said Ontario Mining Company, Stanly A. Easton and Myron A. Folsom, in which suit the said Stewart Mining Company alleged that it was the owner of the Senator Stewart Fraction lode mining claim, and of a certain vein having its apex therein, which crossed the easterly end line of said claim near the center thereof, and extended westerly through said claim in a course generally parallel to the side lines of said claim for a distance of seven hundred and five feet; and that said vein on its downward course southerly passed underneath the surface of said Ontario lode mining claim; and said plaintiff in this suit alleged that it was the owner of the ore bodies beneath the said Ontario lode mining

claim, by virtue of its ownership of the vein above described.

4. And that the defendants in said suit were mining, extracting, and converting to their own use the ores beneath the surface of said Ontario mining claim, between a plane drawn downward vertically through the east end line of the Stewart Fraction lode mining claim extended southerly in its own direction, and a plane drawn parallel thereto at a point seven hundred and five feet west of said end line. Said Stewart Mining Company in said suit prayed for an injunction restraining the said defendants in said suit from mining and extracting ore, and prayed for an accounting.

5. That in said suit said Ontario Mining Company, Stanly A. Easton and Myron A. Folsom appeared and answered said complaint and admitted that the Ontario Mining Company was extracting ore from beneath the surface of the Ontario mining claim, by virtue of a lease which it held on said property. They alleged that Jonathan Bourne was the owner of said Ontario lode mining claim, and on or about May 1, 1911, executed a lease of the same. They further alleged that said Bourne owned all of the ore bodies beneath the [21] surface of the said Ontario mining claim.

6. The said Ontario Mining Company filed a cross-complaint in said suit against the Stewart Mining Company, alleging the ownership by said Bourne of said Ontario mining claim, the execution of a lease by him, to said Stanly A. Easton, and the assignment of said lease to the Ontario Mining Company;

and alleged the ownership by Bourne of all ore bodies beneath the said Ontario mining claim, and prayed that the title of the Ontario Mining Company to said leasehold estate be quieted as against the Stewart Mining Company; and that decree be entered to the effect that the said Stewart Mining Company had no right, title, estate or interest in or to the ore bodies beneath the surface of the said Ontario lode mining claim.

7. Said Stewart Mining Company filed its answer to said cross-complaint wherein it admitted the ownership of Bourne of the said Ontario lode mining claim, but denied his ownership of the ore bodies beneath the surface thereof; and admitted the execution of the said lease, and the possession by the said Ontario Mining Company.

8. Thereafter said cause came on for trial before the said District Court of the First Judicial District of the State of Idaho, in and for the County of Shoshone, on the sixth day of January, 1913, and evidence was submitted by the said Stewart Mining Company and by the said Ontario Mining Company; and thereafter on the eighteenth day of January, 1913, said Court made and entered its decree to the effect, that the said Stewart Mining Company had no interest whatever in or to the ore bodies beneath the surface of the said Ontario lode mining claim, and quieted the title of said Ontario Mining Company in and to its leasehold estate in said ore bodies. Said court found that said Bourne was the owner of said ore bodies [22] and had therefore executed a lease to the said Ontario Mining Company authorizing the

latter to work and mine said ore bodies.

9. Said defendants herein further allege that said Jonathan Bourne had full knowledge of the pendency of said action between the said Stewart Mining Company, and the said Ontario Mining Company, Stanly A. Easton and Myron A. Folsom, from about the time said action was commenced; that said Ontario Mining Company requested the said Bourne to defend said action, and that said Bourne parted with a valuable consideration to said Ontario Mining Company upon the promise by the Ontario Mining Company to defend said action; and that the said Ontario Mining Company, in pursuance of said promise and because of the consideration received from said Bourne, did defend the action.

10. That the subject matter of the said suit in the said District Court of the First Judicial District of the State of Idaho in and for the County of Shoshone was identical with the subject matter involved in the suit herein; and that the plaintiff in said suit in the said District Court of the First Judicial District of the State of Idaho in and for the County of Shoshone was the identical corporation which is complainant in this suit; that the defendant Ontario Mining Company, defendant in the suit, is the identical Ontario Mining Company which took by assignment the lease executed by the defendants herein to Stanly A. Easton.

11. That the said judgment of the said District Court made and entered on the said eighteenth day of January, 1913, was a judgment upon the merits, was final, and has not been reversed or modified.

WHEREFORE defendants pray that the complainant herein take nothing by this action and that said bill be dismissed; and [23] that said defendants have and recover their costs herein sustained.

MYRON A. FOLSOM,

Solicitor and Counsel for Defendants.

[Endorsed]: Filed Jan. 25, 1913. A. L. Richardson, Clerk. By Lawrence M. Larson, Deputy Clerk.
[24]

*In the District Court of the United States, District
of Idaho, Northern Division.*

STEWART MINING COMPANY,

Complainant,

vs.

BUNKER HILL & SULLIVAN MINING AND
CONCENTRATING COMPANY,

Defendant.

STEWART MINING COMPANY,

Complainant.

vs.

JONATHAN BOURNE, Junior, and LILLIAN E.
BOURNE,

Defendants.

STEWART MINING COMPANY,

Complainant.

vs.

SIERRA NEVADA CONSOLIDATED MINING
COMPANY,

Defendant.

Stipulation Consolidating Cases.

**STIPULATION CONSOLIDATING ABOVE
CAUSES AND PROVIDING FOR USE OF
TESTIMONY HERETOFORE TAKEN.**

WHEREAS, the Stewart Mining Company, complainant in each of the above-entitled causes, is asserting title to certain portions of a mineral vein or lode lying outside of the exterior boundaries of the Stewart Fraction lode mining claim, and is basing its claim of title upon the allegation that the vein in question has its apex [25] within said Stewart Fraction lode mining claim, and

WHEREAS, in each of the above-entitled causes the allegations of the complaint are identical so far as the foundation of plaintiff's title is concerned, and

WHEREAS, the defenses in the several causes above mentioned are very similar, and

WHEREAS, in a cause which was commenced by the Stewart Mining Company against the Ontario Mining Company, Stanly A. Easton and Myron A. Folsom, in the District Court of the First Judicial District of the State of Idaho for Shoshone County, the issues are very similar to those involved in the above-entitled causes, and

WHEREAS, in said cause a large amount of testimony was taken and a large number of exhibits were introduced, all of which testimony and exhibits would be as pertinent to the issues in the above-entitled causes as in the case in which the same were offered:

NOW, THEREFORE, for the purpose of saving

the time of the courts and of the parties herein, and for the purpose of saving expense, it is hereby stipulated as follows:

I.

The three causes above entitled are hereby consolidated for the purpose of trial, appeal and other proceedings in said cause.

II.

It is further stipulated that a copy of the testimony taken and the exhibits, or copies and duplicates thereof, offered in the case which was commenced in the State District Court for the First Judicial District, Shoshone County, above referred to, may be filed in either one of the above-entitled causes with the same force and effect as if the witnesses had been sworn, examined [26] and cross-examined, and the exhibits offered and received in the above-entitled court and causes, and when so filed shall constitute a part of the record in each of said causes.

III.

It is further stipulated that either party to the above-entitled causes may offer additional testimony upon any subject not covered by the testimony to be filed as aforesaid, but no more than three witnesses shall be called by either side.

Dated this 12th day of May, 1913.

M. S. GUNN,

FEATHERSTONE & FOX,

CULLEN, LEE & HINDMAN,

Attorneys for Stewart Mining Company, Plaintiff.

CURTIS H. LINDLEY,

MYRON A. FOLSOM,

Attorneys for Defendant, Bunker Hill Mining &
Concentrating Company.

CURTIS H. LINDLEY,

MYRON A. FOLSOM,

Attorneys for Defendant, Sierra Nevada Consoli-
dated Mining Company.

MYRON A. FOLSOM,

Attorney for Defendants, Jonathan Bourne, Junior,
and Lillian E. Bourne.

**[Order Approving Stipulation Consolidating
Causes.]**

The above stipulation is approved, and an order
may be entered in each of the above-entitled causes
accordingly.

District Judge.

[Endorsed]: Filed May 26, 1913. A. L. Richard-
son, Clerk. [27]

At a stated term of the United States District Court
for the District of Idaho, Northern Division,
held at Coeur d'Alene, Idaho, on Monday, the
26th day of May, 1913. Present: Hon.
FRANK S. DIETRICH, Judge.

No. 557.

STEWART MINING COMPANY

vs.

BUNKER HILL & SULLIVAN MINING & CON-
CENTRATING COMPANY.

Order Consolidating Causes.

In accordance with stipulation on file in each cause, it is ordered that this cause and No. 558, Stewart Mining Company vs. Jonathan Bourne, Junior, and Lillian E. Bourne, and No. 563, Stewart Mining Company vs. Sierra Nevada Consolidated Mining Company be consolidated for the purposes of trial, appeal and other proceedings in said cause. [28]

*In the District Court of the United States, District
of Idaho, Northern Division.*

STEWART MINING COMPANY,
Complainant,
vs.

BUNKER HILL & SULLIVAN MINING AND
CONCENTRATING COMPANY,
Defendant.

STEWART MINING COMPANY,
Complainant,
vs.

JONATHAN BOURNE, Junior, and LILLIAN E.
BOURNE,
Defendants.

STEWART MINING COMPANY,
Complainant,
vs.

SIERRA NEVADA CONSOLIDATED MINING
COMPANY,
Defendant.

Stipulation of Facts.

WHEREAS, on the 12th day of May, 1913, the parties above named entered into a stipulation consolidating the three cases above named, and providing that the testimony, maps and exhibits, or copies and duplicates thereof, offered in a case commenced in the District Court of the First Judicial District of the State of Idaho, Shoshone County, wherein the Stewart Mining Company [29] was plaintiff and the Ontario Mining Company and others were defendants, might be filed in the above-entitled causes, and

WHEREAS, it was further provided in said stipulation that either party in the above-entitled causes might offer additional testimony upon any subject not covered by the testimony to be filed as aforesaid, but that no more than three witnesses might be called on either side, and

WHEREAS, the parties to the causes above named now desire to avoid taking the testimony last above referred to, and to agree upon such facts as are not covered by the testimony above referred to, and to close the testimony in said cases,—

NOW, THEREFORE, all the parties named on the first page of this stipulation hereby agree that the following facts are true and may be treated as admitted facts in each of the above-named causes:

1. That the Stewart Mining Company is now, and was at the time of the commencement of the suits above named, the owner of the Stewart Fraction lode mining claim for which it holds patent from the

United States; the Bunker Hill & Sullivan Mining and Concentrating Company is the owner of the Silver Casket mining claim, Survey No. 790, the Saxon lode mining claim, Survey No. 2067, the Marion lode mining claim, Survey No. 2583, and the Ace lode mining claim, Survey No. 2583, and the southerly triangular portion of the Lazy Jean quartz mining claim, Survey No. 1858, all of said claims being patented mineral claims; that the Silver Casket lode claim adjoins the Senator Stewart lode claim on the south, its side lines having a northwesterly and southeasterly course and its end line a northeasterly and southwesterly course; the Saxon lode claim has a length of 1445.3 feet and a width of 603.6 feet, and the northwest corner of said claim is upon the Senator Stewart lode claim, [30] the southwest corner is upon the Silver Casket lode claim, the southeast corner is southeasterly from the southeast corner of the Ontario lode claim, and its northeast corner is upon the Switchback claim; the free ground within said claim consists of an irregularly shaped fraction west of the Ontario lode claim and south of the Senator Stewart lode claim and another irregularly shaped fraction south of the Ontario lode claim, and another irregularly shaped fraction east of the Ontario and Ontario Fraction lode claims; the Marion and Ace lode claims embrace fractions south of the southeast corner of the Silver Casket lode claim.

2. The Ontario lode mining claim is owned by Jonathan Bourne, Junior, is a patented lode mining claim, and is the same claim which was frequently

referred to in the testimony which will be filed in the above-entitled causes in pursuance of the stipulation above referred to.

3. The Sierra Nevada and Carbonate lode mining claims lie a short distance south of the Ontario lode mining claim, but neither of said claims adjoins the Ontario. The Sierra Nevada and Carbonate claims are owned by the Sierra Nevada Consolidated Mining Company, and have been patented for more than twenty years.

4. On August 31st, 1904, the Stewart Mining Company conveyed to the Federal Mining and Smelting Company, and the latter company in May, 1910, conveyed to the Bunker Hill & Sullivan Mining and Concentrating Company, a triangular portion of the Lazy Jean lode mining claim which portion lies west of the Ontario lode mining claim and is described as follows:

“Beginning at corner No. 5 Lazy Jean Lode Claim, Survey No. 1858, thence North $24^{\circ} 38'$ East 305 feet to the side line of the Saxon Lode Claim, thence south 64° East [31] 122.5 feet to line 4-5 Lazy Jean Lode, Survey No. 1858, thence south $50^{\circ} 33'$ West 380.3 feet to place of beginning.”

5. That the deed from the Stewart Mining Company to the Federal Mining and Smelting Company conveying said triangular portion of the Lazy Jean lode as aforesaid, after describing the said ground as aforesaid, contained the following language:

“Together with all dips, spurs and angles, and also all the metals, ores, gold and silver bearing

quartz, rock and earth therein; and all the rights, privileges and franchises thereto incident, appendant and appurtenant, or therewith usually had and enjoyed; and also, all and singular, the tenements, hereditaments and appurtenances thereto belonging or in anywise appurtenant, and the rents, issues and profits thereof; and also all the estate, right, title and interest, property, possession, claim and demand whatsoever, as well in law as in equity, of the said party of the first part, of, in and to the said premises, and every part and parcel thereof, with the appurtenances.”

A copy of said deed is attached hereto, marked Exhibit “A” and made a part hereof.

6. That the deed from the Federal Mining and Smelting Company to the Bunker Hill & Sullivan Mining and Concentrating Company above referred to, conveyed all of its rights and property in and to the said Lazy Jean lode.

7. It is further stipulated and agreed that the vein which was the subject of controversy in the case of the Stewart Mining Company against the Ontario Mining Company, passes beneath the triangular portion of the Lazy Jean lode claim, the Saxon, the Marion, Ace, Silver Casket, Ontario, Sierra Nevada and Carbonate lode mining claims and the boundaries and position of said claims are correctly shown upon the maps filed herein.

8. The Silver Casket mining claim was located in the year 1885; the Ontario in 1885; the Sierra Nevada and Carbonate in 1886; the Stewart Fraction in 1899;

the Saxon in 1899; the Marion and Ace in 1909. [32]

9. It is further stipulated that the foregoing facts together with the testimony and exhibits to be filed herein in pursuance of the stipulation of the parties made on May 12th, 1913, shall constitute the entire evidence to be used in each of the above-entitled causes, or in any appeal thereof, and each of the above cases shall be deemed closed and ready for argument upon the filing of the stipulation, and a copy of the testimony and such of the exhibits or copies or duplicates thereof as either party may deem material; and no witnesses shall be called by either side.

Dated this 24th day of November, 1913.

GUNN, RASCH & HALL,

CULLEN, LEE & MATTHEWS,

Counsel and Solicitors for Stewart Mining Company.

CURTIS H. LINDLEY and

MYRON A. FOLSOM,

Counsel and Solicitors for Sierra Nevada Consolidated Mining Company.

CURTIS H. LINDLEY and

MYRON A. FOLSOM,

Counsel and Solicitors for Bunker Hill and Sullivan Mining and Concentrating Company.

MYRON A. FOLSOM,

Counsel and Solicitor for Jonathan Bourne, Jr., and Lillian E. Bourne. [33]

EXHIBIT "A."

DEED TO MINING CLAIM.

THIS INDENTURE, made this 31st day of August, A. D. 1904, between Stewart Mining Company,

a corporation, party of the first part, and Federal Mining and Smelting Company, a corporation, party of the second part;

WITNESSETH, That the said party of the first part, for and in consideration of the sum of One (\$1.00) Dollars lawful money of the United States of America, to it in hand paid by the said party of the second part, the receipt whereof is hereby acknowledged, has granted, bargained, sold, remised, released and forever quitclaimed and by these presents does grant, bargain, sell, remise, release and forever quitclaim unto said party of the second part, and to its heirs and assigns all of the following described real estate situated in Yreka Mining District, Shoshone County, Idaho, to wit:

All that part of the Lazy Jane Lode Mining Claim, Survey No. 1858, in conflict with the Saxon Lode Mining Claim, the property of the party of the second part, the portion of the said Lazy Jane Lode by this instrument transferred, being more particularly described as follows: to wit; Beginning at Corner No. 5 Lazy Jane Lode Claim, Survey No. 1858; Thence N. $24^{\circ} 38'$ E. 355 feet to the N. side line of Saxon Lode; thence S. $64^{\circ} E.$ 122.5 feet to line 4-5 Lazy Jane Lode, Survey No. 1858; Thence S. $50^{\circ} 33' W.$ 280.3 feet to the place of beginning. Containing 358 acres, more or less.

Together with all dips, spurs and angles, and also all the metals, ores, gold and silver bearing quartz, rock and earth therein; and all the rights, privileges and franchises thereto incident, appendant and ap-

purtenant, or therewith usually had and enjoyed; and also, all and singular, the tenements, hereditaments and appurtenances thereto belonging or in anywise appertaining, and the rents, issues and profits thereof; and also all the estate, right, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity, of the said party [34] of the first part, of, in and to the said premises and every part and parcel thereof, with the appurtenances.

TO HAVE AND TO HOLD, all and singular, the said premises, together with the appurtenances and privileges thereto incident, unto the said party of the second part, its successors and assigns forever.

IN WITNESS WHEREOF, the said corporation has its president to sign its name and affix his name as president and has caused the secretary to attest the same and attach the corporate seal of the corporation hereto.

[Corporate Seal]

STEWART MINING COMPANY,

By H. F. SAMUELS, [Seal]

President.

W. N. MORPHY, [Seal]

Secretary.

Duly acknowledged by H. F. Samuels as president.

[Endorsed]: Filed November 24, 1913. A. L. Richardson, Clerk. [35]

*In the District Court of the United States for the
District of Idaho, Northern Division.*

No. 558.

STEWART MINING COMPANY, a Corporation,
Plaintiff,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,

Defendants.

Decision.

Jan. 16, 1914.

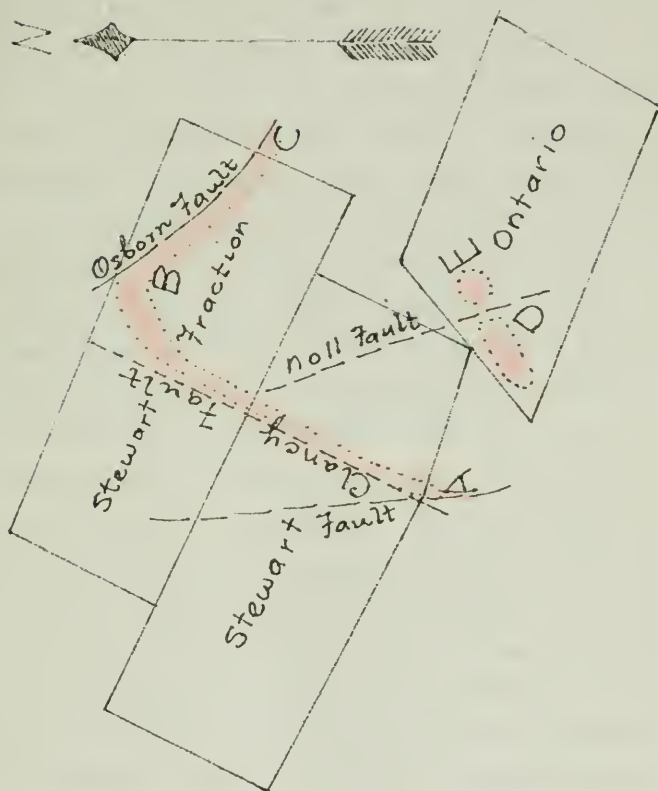
GUNN, RASCH & HALL, HAPPY, CULLEN, LEE
& HINDMAN, CULLEN, LEE & MATTHEWS,
and FEATHERSTONE & FOX, Counsel and
Solicitors for Plaintiff.

MYRON A. FOLSOM, Counsel and Solicitor for
Defendants.

DIETRICH, District Judge:

The property in dispute consists of certain ore bodies lying beneath the surface of the Ontario lode mining claim, which belongs to the defendants, and is situate in Shoshone County, Idaho. They are conceded to be a part of a lode which in its course extends through the Senator Stewart claim and into, if not through, the Senator Stewart Fraction claim, both adjacent to the Ontario, and owned by the plaintiff company. All the claims are patented. The plaintiff invokes the law of extralateral rights, and the controversy really centers upon the ques-

tion [36] whether or not a certain terminal edge of the vein in the Stewart Fraction is to be deemed to be its top or apex. There is but little conflict in the testimony touching the substantive facts, and owing to the extensive exploratory operations which have been prosecuted underground little is left for speculation concerning the material physical conditions.



Referring to the accompanying sketch, roughly speaking, the vein underlies the surface of the space of which the letters A, B, C and D may be regarded as the corners, the most pronounced dip (varying from thirty to fifty degrees) being to the southeast; there is no outcrop. At B-C it terminates against a fault of great magnitude, referred to as the Osborn fault, and there is no reason to believe that any portion of it lies beyond. It also appears to terminate along or near a less extensive fault, called the Clancy, indicated by the line A-B. Mining operations have been carried on on the westerly side of this fault, with disclosures which give reason for believing that the terminal edge at A-B is not the true apex, but for the [37] purposes of this suit both parties agree that it is to be considered as such. Through faulting, the vein has been broken into several pieces, but the dislocation has not been such as to destroy its identity or to give rise to serious doubt as to its legal continuity. The line of the edge along the Clancy fault is approximately horizontal, but upon the edge along the Osborn fault the point C is about four hundred feet lower than the point B, and, in turn, C is about on a level with D and E. It will thus be seen that the downward inclination of the terminal edge from B to C approximately corresponds with, although it is perhaps a little less than, the general southeasterly dip of the vein from the edge A-B. Now, the primary and controlling question is whether this terminal edge at B-C is to be regarded as a part of the apex of the vein, or only the end thereof. Plaintiff, asserting that

it is apex, claims the right to follow the vein upon a downward course therefrom to the ore bodies underlying the westerly end of the Ontario claim; that is to say, all ore bodies lying between the extended vertical planes of the end lines of the Stewart Fraction. It must be admitted that in vertical planes parallel with the easterly end line of the Stewart Fraction points on the terminal edge at B-C are higher than points on the ore bodies at D-E, and the plaintiff contends that the case therefore falls within the provisions of the statute conferring extralateral rights. (U. S. Rev. Stat., sec. 2322.) The statute confers upon the locator of a mining claim the right to the possession and enjoyment of "all veins, lodes, and ledges throughout their entire depth, the top or apex of which lies inside" the surface lines, "although such veins, lodes or ledges may so far depart from a perpendicular in their course downward as to extend outside the vertical side lines." These extralateral rights, however, are limited to such parts [38] of the vein as lie between vertical planes drawn downward through the end lines and so extended in their own direction as to intersect the external part of the vein. It is further provided that the owner of such a vein which "extends in its downward course" beyond the lines of his claim is not authorized to enter upon the surface of the claim of another.

The plaintiff introduced in evidence drawings pictorially representing three cross-sections of the vein upon vertical planes parallel with the end lines, and, accepting these as fairly illustrative, it would appear

that the angle of downward inclination of straight lines drawn from the highest points on the hanging-wall at B-C to the highest points upon such wall at D-E ranges from approximately ten to twenty degrees, and of similar lines on the footwall from six to fifteen degrees. The actual inclination of the walls, however, is far from being uniform, and if in passing westerly from the Osborn fault we exclude the first two or three hundred feet the net declination is very slight. This segment of the vein, from two to three hundred feet wide along the fault, presents the appearance of having been bent up from its normal course, and its inclination is therefore greatly in excess of the average. It is to be added that not only is the general course of this vein northeasterly and southwesterly, but such is the prevailing course of other veins in the district.

The identical issues here presented were involved in Stewart Mining Co. against the Ontario Mining Co. (lessee of the Ontario claim), 132 Pac. 787, and much of the plaintiff's oral argument was directed to combating a proposition announced by the Supreme Court of Idaho in that case, to the effect that in pursuing a vein extralaterally it cannot be followed more upon the strike than upon the dip, even though such course may in fact be downward. This view, however, is not here urged by [39] counsel for the defendants, and it is therefore passed, with the suggestion only that it appears to be out of harmony with the settled rule of this jurisdiction. *Bunker Hill & Sullivan Mining Co. vs. Empire State etc.*, 108 Fed. 189. *Bunker Hill & Sullivan Mining Co.*

vs. Empire State etc., 134 Fed. 768. Last Chance etc. vs. Bunker Hill & Sullivan Mining Co., 131 Fed. 579.

But assuming that the vein may be followed more upon its strike than upon its dip, I am unable to yield to the plaintiff's contention that this principle is of controlling importance. No claim is asserted of a right to the ore bodies at D-E by virtue of their relation to the apex from A to B. Under the familiar rule that where the vein passes laterally instead of longitudinally through the claim the side lines are to be deemed the end lines (Flagstaff Silver Mfg. Co. vs. Tarbett, 98 U. S. 469. Del Monte M. Co. vs. Last Chance M. Co., 171 U. S. 55), this apex, if available at all as the basis for the assertion of extralateral rights, would authorize the plaintiff to pursue the vein only in a southeasterly direction and within the extended vertical planes of the side lines of the claims; these lines, however, are not parallel, and therefore carry no such right. Iron Silver M. Co. vs. Elgin Mining & Smelting Co., 118 U. S. 196; Del Monte M. Co. vs. Last Chance M. Co., *supra*. Other reasons may be assignable for denying such right in that direction, but without elaborating them it is sufficient to say that plaintiff predicates its claim wholly upon the assumption that the terminal edge at B-C is apex; and whether this assumption is well founded or not is therefore the cardinal question. That a downward course may be pursued upon the vein from this edge to the disputed ore bodies is conceded; but we are not to conclude that an edge is the apex merely because the vein may be followed there-

from upon an inclination downward; clearly cases [40] may very well arise where such a course can be followed from an undercut or bottom edge. Nor is it controlling that such downward course may be parallel with the end lines. The real relation of any given edge to the vein is in no wise affected by its relation to the boundary lines of the claim embracing it. These lines are wholly artificial and fortuitous, and if an edge is the top or apex of the vein it is such regardless of the question as to how the boundary lines of the claim are laid, or indeed whether any location at all has been made. If A-B and B-C were straight lines, thus forming a true angle at B, such angle would be less than ninety degrees, and under the definition relied upon by the defendant B-C would unquestionably be a bottom edge, and yet from such edge there would be a downward inclination from the vein in vertical planes parallel with the end lines of the claim.

It is not seriously controverted that the general onward course or strike of the vein is, as indicated, in the direction of the Clancy fault, and that if we consider only such general course the angle A-B-C is less than ninety degrees; but it is pointed out that by reason of the curvature in the vicinity of B, no such angle in fact exists. This may be true, but it is not thought that a slight bending of the vein, due to a local disturbance of an abnormal character, should be controlling or should blind us to the true relation of the edge along the Osborn fault to the admitted apex at A-B. Generally speaking, the miner has the right to rely upon conditions as they now

exist, and not as they may have been in the beginning, but the statute must be reasonably applied, and in making such application the original position of the vein and the relations of its several [41] parts to each other must be taken into consideration. Otherwise, for example, where, through faulting, the original vein has been broken up and parts thereof measurably dislocated, each part might be held to be a distinct vein, with a fault-edge for an apex. When we consider that not only the general course of this vein, but the general course of other veins in the district, is substantially thirty degrees east of north, that the sharp inclination at the edge B-C is local and abnormal, and that the primary and persistent dip is to the southeast, and not to the southwest, it is thought that the slight curvature at B, probably due to the bending of the vein as the result of fault disturbances, should be disregarded, and that in measuring the angle at B we should have regard for the prevailing courses of the lines B-A and B-C. Emphasis is added to this view when we remember that, while the definition to which reference has been made may afford a good general working rule, it is not necessarily of universal application. It is without statutory origin, and there rests upon the courts no obligation to adjust to it, in strict detail, each concrete case. We are here primarily concerned in determining, not whether there is an angle at B, or how the angle shall be classified, but whether the edge of B-C is the top of the vein. If, in the course of this inquiry the definition can be intelligently applied, it may be employed as an aid to a right conclu-

sion. But in the case of two possible applications to an exceptional condition it must either be abandoned entirely as an unreliable guide, or that application must be made which gives a result conformable to our conception of the general meaning of the words "top" and "apex." These terms were doubtless used in the statute as synonyms, and were employed in no [42] occult or mysterious sense. As has been frequently observed, they are not miners' words, and when adopted by Congress to express its intent they were without peculiar or technical significance arising from their use in the mining industry. Now, if we accept the word "top" in its usual sense, as men of ordinary intelligence commonly understand it, its inappropriateness as a descriptive term for the edge B-C is clearly apparent. If we consider only a narrow strip of the vein along this edge or confine our attention to the showing of only a few selected cross-sections, doubtless a different view may be taken; but when, in the light of all of the evidence, including the numerous maps and charts, and especially the defendant's large model, which is admitted to be substantially correct, we project the vein in its entirety and contemplate the position it occupies in the enclosing country and the relation of its terminal edges to each other and to the horizon, the first and persistent impression undoubtedly is that the edge B-C is its end or side, and not its top or apex; and such is the view I feel bound to adopt.

Accordingly, the complaint will be dismissed.

[Endorsed]: Filed January 16, 1914. A. L. Richardson, Clerk. [43]

*In the District Court of the United States, for the
District of Idaho, Northern Division.*

No. 558.

STEWART MINING COMPANY, a Corporation,
Complainant,

vs.

JONATHAN BOURNE, Jr., and LILLIAN E.
BOURNE, His Wife,
Defendants.

Judgment of Dismissal.

This cause came on for final hearing before the Court, and the Court upon due consideration of the bill, the answer, the replication, the evidence, and the arguments of counsel, doth now

ORDER, ADJUDGE AND DECREE that this suit be and the same is hereby dismissed, with costs to the defendant to be taxed.

Dated this 31st day of January, 1914.

FRANK S. DIETRICH,

Judge.

[Endorsed]: Filed January 31, 1914. A. L. Richardson, Clerk. [44]

*In the District Court of the First Judicial District
of the State of Idaho, in and for the County of
Shoshone.*

No. 3235.

STEWART MINING COMPANY, a Corporation,
Plaintiff,

vs.

ONTARIO MINING COMPANY, a Corporation,
STANLY A. EASTON and MYRON A.
FOLSOM,

Defendants.

Before Hon. W. W. WOODS, Presiding Judge.

APPEARANCES:

For the Plaintiff:

TYSON S. DINES, Esq.

M. S. GUNN, Esq.

W. E. CULLEN, Esq.

Messrs. FEATHERSTONE & FOX.

For the Defendants:

MYRON A. FOLSOM, Esq.

JOHN P. GRAY, Esq.

J. E. GYDE, Esq.

Reporter's Transcript.

BE IT REMEMBERED, that the above-entitled case came on regularly for trial in the above-entitled court on [45] Monday, January 6th, 1913, at 10:00 o'clock A. M., before Hon. W. W. Woods, Presiding Judge, the plaintiff being represented by its counsel,

Tyson S. Dines, Esq., M. S. Gunn, Esq., W. E. Cullen, Esq., and Messrs. Featherstone & Fox, and the defendants being represented by their counsel, Myron A. Folsom, Esq., John P. Gray, Esq., and J. E. Gyde, Esq.; whereupon the following proceedings were had: [46]

[Proceedings Had] Monday, January 6, 1913.

Monday, January 6th, 1913.

Mr. GUNN.—May it please the Court, we desire permission to file a supplemental complaint, alleging the continued extraction of ore after the commencement of this action, and praying for an accounting down to the date of the trial. I have handed Mr. Folsom a copy of the supplemental complaint, and it is my understanding that there is no objection.

Mr. FOLSOM.—There is no objection.

The COURT.—I consider it very proper.

Mr. FOLSOM.—We simply desire to be understood as denying, as we did in our original answer, that Mr. Easton and I are mining, but we admit that the Ortario has been mining since. It will not be necessary for us to file a formal answer to that, I suppose.

Mr. GUNN.—Oh, no.

The COURT.—The Court will file this supplemental complaint.

Mr. GUNN.—May it please the Court, we desire to make a request at this time which we have no doubt counsel for the defendant will join in, and that is, that at the conclusion of the testimony your Honor

will [47*—2†] visit this property, and if that is understood, that you will visit the property, it might make some difference in the introduction of testimony. It may not be necessary to refer in detail to some matters that we would otherwise feel called upon to explain more fully, if it is understood that your Honor will visit the property.

MR. FOLSOM.—We have not the slightest objection. Your Honor can consult your own wishes, but we would be very glad to have you do it.

THE COURT.—I can promise to go to the property, but I cannot promise to climb ladders or anything of that kind. I have been the subject or the victim of inflammatory rheumatism, so that my feet are almost crippled and I cannot stand any ladder work, even to the amount of a hundred feet.

MR. GUNN.—The workings that it will be important for your Honor to visit are open and can be easily reached, and I think we can arrange it so that there will be no necessity for climbing.

THE COURT.—I have been through a great many mines in my life, but I am not able physically at this time to make a mine examination, and I want you to understand me [48—3] clearly in that regard.

MR. GUNN.—Yes, sir. There is one other matter that perhaps it would be well to call attention to at this time. We have agreed that the number of witnesses on each side shall be limited to ten.

MR. FOLSOM.—That is correct, your Honor. Very well.

*Page-number appearing at foot of page of original certified Record.

†Original page-number of Reporter's Transcript as same appears in Original Certified Transcript of Record.

Mr. CULLEN.—We have also agreed, if the Court please, that the stenographers, Mr. Macdougall and Mr. Deavitt, may be sworn in as official reporters, and that their transcript of the testimony may be taken as official.

The COURT.—Without any charge to the State?

Mr. CULLEN.—Yes, without any charge to the State, and also without any bond.

The COURT.—Very well. I will appoint these gentlemen as deputy reporters and will swear them in. I believe Mr. Deavitt has already been appointed a deputy reporter and has been sworn in.

(G. H. Macdougall sworn in as a deputy court reporter.)

Mr. GUNN.—The complaint in this case alleges title and ownership of the Senator Stewart fraction claim in the plaintiff, and gives a description of the claim in [49—4] the complaint. In the answer the allegation with reference to title and ownership and the description are admitted, but there is an exception pleaded, and I believe that counsel for the defendant are willing to stipulate that the exception in the patent does not affect the property in controversy in this action, and the exception is not material to any issue in the case.

Mr. FOLSOM.—That was not the understanding. The understanding was that we would stipulate that it was not necessary to offer any proof of title, but that it would be admitted that the exception as pleaded in the answer was taken from the patent and should have been incorporated in your description in order to make it complete. I will state that we do

not make any contention and do not expect to make any contention that it is of any importance, other than as to the fact of accuracy.

Mr. GUNN.—Do I understand that you make no contention that the part excepted from the patent has any effect whatever upon this case?

Mr. FOLSOM.—As far as I know it does not, but I simply pleaded that as a matter of correcting your description. We did not desire to admit an erroneous description, because it may at some time become material [50—5] in some other proceeding, but as far as I know it does not affect the result in this particular case.

Mr. GUNN.—We admit that the exception was made, and it was our understanding that it would be stipulated that the part excepted had no materiality as far as the issues are concerned in this case, and does not affect the property.

Mr. FOLSOM.—Down in the southwest corner of the Stewart Fraction, your Honor will see a line marked across there, and it is called the Quaker. That piece of ground was excepted when the Stewart Fraction was patented.

Mr. GUNN.—There was another exception.

Mr. FOLSOM.—No, that was in the Senator Stewart claim, not in the Senator Stewart fraction.

Mr. CULLEN.—The defendant does not pretend to be the owner of the Quaker claim.

Mr. FOLSOM.—Oh, no.

The COURT.—I understand. I suppose you will not need the regular reporter, and it will make better

room for the two that you have engaged if he is excused.

Mr. CULLEN.—He may be excused if he desires.

Mr. FOLSOM.—As far as I am concerned, I would be [51—6] perfectly satisfied with Mr. Libby's report, but I understand he desires to be relieved.

The COURT.—I would be very glad to relieve him, because he has been recently the victim of an accident.

Mr. GUNN.—If your Honor please, we are ready to proceed. I take it that in view of the fact that your Honor heard the preliminary hearing in this case, it is unnecessary to make a statement of it, or to read the pleadings, because your Honor is familiar with the issues.

The COURT.—Yes, I am quite familiar with the case as developed by the preliminary hearing. You may proceed. [52—7]

[Testimony of William Clancy, for Plaintiff.]

WILLIAM CLANCY, after being duly sworn as a witness for plaintiff, testified as follows:

Direct Examination.

(By Mr. DINES.)

Mr. DINES.—Before we proceed, your Honor, we have answered ready to save time in this case on account of the number of witnesses and the counsel, who would be discommoded otherwise, on the assurance that we will have certain models and exhibits ready as the trial progresses, and we have no reason to believe that we will be disappointed, but as a matter of caution I wish to say to the Court that if it should

(Testimony of William Clancy.)

be that we are disappointed in receiving these matters before our other witnesses are done, we might be compelled to ask the indulgence of the Court at that time for a few hours or half a day. We do not anticipate it, but we think it fair to announce that.

The COURT.—In such an event the Court will be inclined to indulge you to any reasonable time.

Q. State your full name, residence and occupation.

A. William Clancy; residence, Kellogg; mining engineer. [53—8]

Q. How long have you followed the occupation of mining engineer? A. Ten years.

Q. Had you had before entering that vocation any training at any technical school?

A. I am a graduate of the University of Arkansas, as a civil engineer.

Q. Where has been your experience in mining engineering?

A. I graduated in June, 1902, and from June, 1902, until early in 1906, I was in the employ of the Montana Ore Purchasing Company as a mining engineer. From 1906 until the latter part of 1908 I was in the employ of the East Butte Copper Mining Company as a mining engineer, and for a short time after that I was working on prospects on my own account until June, 1911, when I entered the employ of the Stewart Mining Company as a mining engineer, and since that time I have been constantly employed by them.

Q. During the ten years that you have followed this vocation, have you had opportunity to examine veins of mineral-bearing rock, the development on

(Testimony of William Clancy.)

those veins as [54—9] shown in the working of the mines, and the position and location of ore bodies underneath the ground, and the extraction of these ore bodies? A. I have.

Q. Since you have been connected with the Stewart Mining Company, to what properties have your duties extended, and where?

A. The properties of the Stewart Mining Company, near Wardner. The claims under which the work has been done are the Senator Stewart Fraction, and the Senator Stewart, the Switchback, the Lazy Jean and the Ontario claims.

Q. Please designate—I call your attention to an exhibit which is shown here preliminary to its identification, which will afterwards be identified as Plaintiff's Exhibit Number 1, and I ask you to point out on this exhibit the lines of the Senator Stewart Fraction.

A. Beginning at the northwest corner of the Senator Stewart Fraction, to which I am now pointing; then south eastward along the north side line of the Senator Stewart Fraction to the northeast corner; then southwestward along the east end line to the southeast corner; thence along the south side line to the intersection of the south side line of [55—10] the Senator Stewart Fraction as located with the Quaker east side line; thence along the Quaker east side line to the intersection with the west end line of the Senator Stewart Fraction as located; thence along the west end line to the northwest corner of the claim, the point of beginning.

(Testimony of William Clancy.)

Q. Please state if, in connection with your duties, you have surveyed out those lines on the ground from the patent description.

A. I have surveyed those lines and located the corners as they are upon the ground, and they check with the description in the patent.

Q. Are those lines correctly designated on the exhibit heretofore referred to as Exhibit 1?

A. They are correctly designated on the exhibit.

Q. Now, under *those* direction and supervision and by whom were all the surveys made, resulting in the showing of the workings, the position of the workings, the positions of the upraises, constituting the body of Exhibit No. 1?

A. I have either surveyed all of the workings myself which are shown upon this map, or have checked with surveys [56—11] which were previously made, and the map was made under my supervision. I wish to state that there is a small portion that was surveyed before I came with the Stewart Mining Company, but I have since checked that.

Q. Now, take the workings that are shown in the Ontario claim; from what data are those workings placed upon the map?

A. They were placed upon the map from the maps that were received from the Ontario Mining Company, purporting to be a true representation of the workings, and I have also checked their survey by means of compass surveys and measurements, and find them to be correct.

Q. The Ontario Mining Company, the defendant

(Testimony of William Clancy.)

in this case? A. Yes, sir.

Q. Now, please state to the Court generally whether or not the plan map referred to as Plaintiff's Exhibit 1 correctly represents the position and location of such lines, workings and other data as it purports to represent on its face. A. It does.

Q. In following the southerly side line of the [57—12] Stewart Fraction claim, you took a diagonal course back to the westerly side line intersection of a diagonal, which is eliminated from the Stewart Fraction, a triangular strip of ground marked Quaker. Please state if that is the tract of ground, the portion of that which is referred to in the exception that counsel have already stated to the Court there is a stipulation concerning.

A. Yes, sir. It is the conflict between the Senator Stewart Fraction and the Quaker location. The Quaker was the prior location.

Q. Are the end lines of the Senator Stewart Fraction parallel? A. They are.

Q. Are the side lines parallel?

A. No, the side lines are not parallel.

Q. Now, will you please describe in your own way and generally, so the Court may understand, calling attention to the particular numbers of the workings to which you refer, so that your testimony may be identified with the map, exactly what workings had been done on the Senator Stewart Fraction at the time of the beginning of your employment with the Stewart Mining Company? [58—13]

A. On this map there is a working shown in blue,

(Testimony of William Clancy.)

which is marked "Old Lower Stewart Tunnel." That level was nearly all done at the time of my arrival. I will describe it: Beginning at the tunnel, going southerly along the working marked "Old Lower Stewart Tunnel" to the intersection of the working marked "Drift No. 2 West," and also one marked "Drift No. 1 East." This Drift No. 2 West was extended to a point marked upon the map "9505-C." That was the approximate face of that drift at the time of my arrival. On the Drift No. 1 East, the eastern face at the time of my arrival was at a point on the map marked "2102." The work to the east and west of those points has been done since my arrival. The working marked upon the map Drift No. 2 East was driven before I arrived. The working on the map marked "Deering Crosscut" was driven, also the drift marked "Drift No. 5" and "Drift No. 5 West." Drift No. 5 West was driven in its entirety at the time of my arrival, but Drift No. 5 East has since been extended from a point on the map marked "No. 127" eastward. Going back to the intersection of the old lower Stewart Tunnel and the Drift No. 2 West, and going on the western branch of the tunnel in a southerly direction, this [59—14] tunnel had been driven, with its various branches, to the westward to the southwest end, beyond a point marked 9530. The tunnel has not been extended since my arrival. The short working marked No. 4 Lateral, south of No. 7 raise, was extended since my arrival, toward the drift marked Drift No. 4 East. Otherwise, all the workings on the

(Testimony of William Clancy.)

tunnel level were driven at the time I arrived at the Stewart mine. All the workings shown upon the map as the upper Stewart Tunnel were driven, and the 100 foot level at the time of my arrival consisted of a station and a crosscut from the shaft which extends below the Stewart Tunnel level, marked Shaft No. 1, upon the map. There is a crosscut from the shaft in a southeasterly direction beyond the point on the map marked 9908. From this point drifts extended east and west; westward the drifts extended a short distance beyond the point on the map marked 2613, and eastward approximately to the point marked 9940, and a crosscut marked West 105 Crosscut was driven to the point marked 9981 upon the map, and the crosscut north from the shaft was driven in its entirety before I arrived at the Stewart mine. The only extension on the 100 foot level since my arrival was the extension [60—15] of the 105 Crosscut to its present face, and the extension of Drift No. 5 East to its present face.

The 200 foot level at that time was just a station from the shaft, which is a continuation of the No. 1 shaft from the 100 foot level down—a station and crosscut south marked upon the map “200 South Crosscut” and the “200 North Crosscut,” and from the 200 North Crosscut, near its end, there was a *draft* only a short distance of about probably ten or fifteen feet long in either direction. From the south crosscut there were drifts extending east and west. The drift marked “Drift No. 205” on the map was extended to a point approximately marked “113”

(Testimony of William Clancy.)

upon the map. The working shown as the East 208 Crosscut was also driven at that time. The drift westward from the south crosscut was driven to a point approximately at the present location of Raise 200K as shown upon this Exhibit No. 1. I overlooked a crosscut on the intermediate level, the level marked "104 Intermediate." It is a crosscut from the raise marked "100C" driven northward; it was driven at that time, but no other working on that level. I think that covers all the work which was done on the sill floors, or levels at the time I arrived.

[61—16]

Q. Was any of the work done in the Ontario that is shown in the lines on Exhibit No. 1 at the time of your arrival?

A. The only work in what is now the Ontario Mine was the Silver King tunnel, which at that time extended to the point where the Silver King workings crosses underneath the 200 foot level of the Stewart mine, as shown upon Exhibit 1. There was no working from this tunnel.

Q. Had any stoping been done in the Ontario at that time, at the time of your arrival and employment in June, 1910?

A. That is rather general. I don't know, about the entire claim, but for some distance—

Q. Any part of the stoping that will be referred to in these investigations?

A. No, on the drift shown here there was nothing done.

Q. Now, all of the other workings, than those that

(Testimony of William Clancy.)

you have referred to have been done since your employment with the Steward Mining Company and to what extent have you followed those workings day by day as they were done, both in the workings that were shown on Exhibit 1 and in [62—17] the stoping that was done from these different workings?

A. I was there every day keeping a record of the work as it progressed, and taking notes of the geology.

Q. As the work progressed, did you take the course and dip of the different workings on the vein at different places as shown in these workings?

A. If there was any vein or fault in the working, I would take the course and dip of it; that came in the notes on the geology.

Q. Now, please state whether or not the small figures that are put on this exhibit referring to different portions of these workings from time to time, have been identified in any way underneath the ground and upon the ground itself.

A. The small figures to which you refer are survey points in the ground, and that represents the number which is to be found on the *breat* tag at that particular place underground.

Q. Are those survey points still to be seen in the workings in the mine at these different places?

A. A great many of them are; where the workings are [63—18] open they are still in place.

Q. And how are they indicated?

A. The survey points which the Stewart Mining Company uses are of copper or tin, yellow in color,

(Testimony of William Clancy.)

about the size of a half a dollar and circular, with a number stamped upon them.

Mr. DINES.—We will offer Exhibit No. 1 in evidence, if your Honor please.

The COURT.—It will be admitted.

(Plan map marked Plaintiff's Exhibit No. 1.)

Q. Mr. Clancy, Exhibit 1 is what is called a plan map. Please explain what you mean by a plan map.

A. A plan map of mine workings is a projection of these workings on a horizontal plane, a lower horizontal plane, as if you were an infinite distance above the mine, and looking down upon it.

Q. What is there in addition to the plan map that would show the extent of the stoping—not on this map, but what is there in the way of exhibits which will hereafter be introduced to show the stoping?

A. We have a map which is a plan map with the stope [64—19] floors marked upon it.

Q. This plan map, Exhibit 1, does not purport to show the stoping?

A. No, it is a map of the levels, or sill floors.

Q. Now, shown on this map you have a number of lines at different places, black lines parallel to each other and going from one level to another level or sometimes above the level without connecting with any other, which I indicate to you at different places on this map, all black parallel lines. Please state to the Court what those lines represent.

A. Raises or shafts; the black parallel lines close together are the raises; the shafts are marked with

(Testimony of William Clancy.)

black parallel lines showing the space between, not so close together.

Q. Very well. I notice in red coloring in the northerly portion of the Senator Stewart Fraction claim a working which is marked "Apex Drift"; please state to the Court when that working was driven. A. In the last month or two.

Q. Beginning at a point marked 402 there is indicated a working on the map running in a southeasterly direction. [65—20] What is that?

A. That is a tunnel from surface to the Apex drift.

Q. Upon what slope of the mountain, if any, is that tunnel driven at the mouth?

A. It is the northwest slope. [66—21]

Q. At the connection here with the working marked Apex drift running as indicated by the pointer and designated by the figures 2519, 2566 and 2502 with figures 2117 at the point of connection between the crosscut tunnel to which you have just referred and the Apex drift and containing a branch running to the southwest with the figures 2114 and 2532 indicated in the working; are you familiar with those workings and with what they show?

A. I am.

Q. What is the ordinary country rock surrounding the veins in this immediate section of country shown here in Exhibit 1? A. Quartzite.

Q. Through what does your tunnel pass after it enters cover until it reaches the figures I just gave you at the point of its connection with the Apex

(Testimony of William Clancy.)

drift? A. It passes through quartzite.

Q. What does it show at the point indicated by my pointer, which are the figures 2117?

A. At that point the Apex drift is shown in the footwall of the Stewart vein; it is also the intersection of a raise marked upon the map raise 4 east. [67—22]

Q. What is that raise four east?

A. That is a raise that was put upon the footwall of the vein from the top of the stopes above the old lower Stewart tunnel level extending from the top of the stopes to the surface along the footwall of the vein.

Q. What was this raise driven on, what is it for, out in the body of the raise or the top of the raise?

A. From the old lower Stewart tunnel level a short distance east of the place where the drift four east appears on the exhibit, the raise extends upward in mineable ore, that is, what are now stopes worked out. Beginning at a point—the top of these stopes are shown upon the map in horizontal projections about twelve feet south of the working shown as the Apex drift near the point marked 2117; the raise extends upward along the footwall of the vein with vein material on all sides of the raise except on the footwall side until within ten feet, approximately ten feet, of surface, where the surface wash appeared.

Q. What portion of the vein have you in the point that you have designated ten feet beneath the surface in that upraise?

A. The top or apex of the vein. [68—23]

(Testimony of William Clancy.)

Q. You speak of vein material. Please state to the Court what that vein material is and how you know it to be vein material.

A. It is the vein material that we find—it is the filling between the walls in the veins we find in this district; it is crushed quartzite, quartz and iron stain, and near the surface we sometimes find little pyromorphite, or some carbons, very little of that; it is usually iron stain and quartz; that is what indicates our vein, that is, near the surface.

Q. Is the footwall in solid formation at that point or broken up?

A. The footwall is continuous.

Q. Well, is it solid or broken up?

A. It is solid.

Q. Upon what is the portion of Apex drift extending to the northerly and easterly driven from the point 2117 already indicated?

A. It is driven along the footwall of the Stewart vein.

Q. Just describe that now, if you please, in your own language, to the Court. [69—24]

A. Describe the whole drift?

Q. Just describe that whole drift from point 2117 to its present breast.

A. Starting at the footwall of the vein and drove along the footwall keeping the wall on the right-hand side or lower side of the drift, to about point 2502—along one direction is shown the point 2502 where the vein turns in a southeasterly direction, following the footwall of the vein all the way to its present face.

(Testimony of William Clancy.)

Near the point 2502 on the left-hand side or north-erly side of the drift a large fault appears as shown by the irregular line, from the drift, we passed through that and found quartzite on the other side. The present face is in the vein. That drift is now being extended on vein material for its entire length. Then we came back along the drift opposite the point marked 2519, a crosscut is driven southward for a distance of thirty feet from the footwall of the vein or the south side of the Apex drift. This crosscut is entirely in vein material, and the face of the cross-cut is in broken up ground which is caused by caving from the stope below; there is lead carbonates, quartz—

Q. I did not catch that. Where did you say that crosscut [70—25] is?

A. It is thirty feet south of the Apex drift.

Q. And driven in what direction?

A. A southerly direction. At that point we stopped without reaching the hanging-wall of the vein on account of the caving from the stope below; we could not extend it to the hanging-wall, so the way the situation stands, we have the footwall and thirty feet on the vein, but have not crossed the vein, but the vein is clearly shown in the crosscut there as vein material.

Q. How does the vein material which you have indicated as shown in the crosscut compare with the vein material that you had in the raise up above the apex level to the point of its highest development and termination at ten feet below the surface.

(Testimony of William Clancy.)

A. It is the same character of material.

Q. I notice you were using a scale a moment ago; what is the scale as shown here?

A. One inch equals thirty feet.

Q. Is this work being extended at the present time?

A. The eastern face of the Apex drift is being extended, but the western face is not. [71—26]

Q. Have you yet reached the hanging-wall in the face of the crosscut on the vein to which you have just called attention? A. No, sir, we have not.

Q. How wide from present development at that point is the vein shown to be?

A. The development is shown thirty feet, that is, is shown more than thirty feet.

Q. What is the character of the footwall that you say you followed in going along the easterly branch of the Apex drift?

A. The footwall is shown by a clay gouge.

Q. And at any points have you passed through the clay gouge?

A. Yes. We were through the gouge all the time which in running a drift as that is, the footwall is on the south side and the bottom or on the north side and the top, with the dip of the vein as it is there, so the north side of the drift and the bottom is through this gouge all the time, but opposite the point 2502 we extended it for a distance of thirteen feet.

Q. What is the wall, the footwall of the vein as shown [72—27] in that working, what material?

A. Clay gouge containing some material in places.

Q. Is it in place? A. It is.

(Testimony of William Clancy.)

Q. What is this country out in the north of the Apex drift? A. Quartzite.

Q. What workings have you to show that it is quartzite?

A. The extension of fifteen feet beyond the fault that I spoke of is found to be quartzite.

Q. What is the small disconnected working there that is shown on the map and marked—I don't think that is given a mark except a red line?

A. That is the tunnel in the surface.

Q. What is in that tunnel; what does that tunnel show? A. Croppings; vein croppings.

Q. Is it connected with any other of the work below?

A. No, it has no connection with any of the work below.

Q. Now, take from point 2117 to the westerly face of the Apex drift, and tell in your own language to the Court, if you please, what you encountered there and what it now [73—28] shows.

A. From the point 2117 westward the Apex drift was driven along the footwall of the vein encountering thick gouge and galena in one or two places. Near the point marked 2143 and near 2532 we had little bunches of galena on this continuous footwall. Just near or just beyond the point 2532 we encountered a fault beyond which the vein does not extend. We drove the Apex drift westward on the vein as *the* far as the vein remained above the floor and stopped.

Q. Are you able to identify that fault that you encountered in the west branch of the Apex drift with

(Testimony of William Clancy.)

any fault that is given a name or designation by the miners in that district?

A. The entire vein from one end to the other—from the north end to the south end the stopes have been cut off by a fault apparently, that is, they have been cut off at a point we shall mark upon the map as top of No. 7 raise, top of raise marked raise two west, and in that Apex drift. From the course and dip of the fault as shown in raise two west and in the west face of the Apex drift I would think they were the same fault. Extending on the western end it has a different strike, but from the location of it I [74—29] would identify it as the same fault extending through the entire length of the working on that level.

Q. Please indicate from what this upraise is driven, the upraise I designate is the upraise that you have just described as going to within ten feet of the surface, going up above the Apex drift, and from the Apex drift at this point. Please indicate this working colored in blue and marked drift four east with a number of your survey points in it, and tell the Court what that is, when it was done and what it shows now, and what you encountered in the progress of that work.

A. The working extending eastward from the Deering crosscut marked drift 4 east, beginning with the nearest survey point 9962, *it* upon the vein, was driven upon mineable ore to a point marked 2090. All the stopes between survey point 9962 and survey point 2090 was mined and shipped. The raise

(Testimony of William Clancy.)

marked raise 4 east is on the vein from this working to the top of the stopes at the point shown upon the map approximately 12 feet south of the Apex drift.

Q. Please indicate that point.

A. (Witness indicates.) [75—30]

Q. Can you identify it on the map?

A. About twelve feet south of the Apex drift, along raise 4 east.

Q. Now, your blue workings at that point are designated upon Exhibit 1 as the old lower Stewart tunnel. Please describe from the working there that you have already indicated in blue in an easterly direction the working that is shown there the most northerly and state to the Court what is found there now and what you found there in the progress of that work.

A. Beginning at the point marked upon the map as 2550 in the drift 4 east, we begin a crosscut across the vein. At or near the point 2550 the vein existed at the bottom of the crosscut, exists in the bottom of the drift 4 east, from which the crosscut is driven. Ore can be traced in this crosscut near the point marked 2503.

Q. Is that your first survey point as you go east?

A. Yes, sir; I mentioned that so you could identify it.

Q. Yes, sir.

A. There is ore in this crosscut to the point where a raise marked raise No. 3 east is up in a southerly direction [76—31] from this crosscut. Along the space of the crosscut in which the words No. 3 east

(Testimony of William Clancy.)

crosscut appear is broken material. It is under the vein, and probably a part of the vein; there is some ore in it once in a while, but it is all crushed, due to the condition of the vein at that place. We again encounter the vein in commercial ore at the point 2515; we have about a foot of good ore there in the back.

Q. Just indicate the point there with your pointer so his Honor can tell the exact place you refer to.

A. There is ore at the point 2515 to which I am pointing. The drift is extended eastward on ore beyond, by the point 2512 and 2571. Between the points 2571 and 2549 there is no more galena or commercial ore, as I have expressed it, but the vein extends beyond the point 2549 up or near the point 2584, and that is the end of the upward termination of the vein.

Q. How do you know that to be the end or upward termination of the vein?

A. Because you can go down upon the vein but cannot go up upon the vein on its true dip at that point.

Mr. GRAY.—Q. What point was that, Mr. Clancy?
[77—32]

A. Near survey point 2584. The point to which I am referring is also the top of raise which is marked upon the map raise 218 east.

Q. Take that portion of the working that you have just described from the point where the upraise that you have referred to enters it in an easterly or northeasterly direction; what does that show in there?

A. Quartzite.

(Testimony of William Clancy.)

Q. Then where did you pass through the vein and into the country rock or quartzite?

A. We passed through the big fault which we recognized in this mine and is known as the Osborne fault near the point 2584; that is about opposite the survey point 2584 on the north side of the drift, and passes through the south side of the drift at the intersection of the north side of raise 218 east and drift 5 east.

Q. Follow the upraise that you have referred to and indicated by parallel lines marked R. 218 east and tell the Court what can now be seen in that upraise and what was encountered in it as the work of driving that upraise progressed.

A. Which way do you want me to go, from the top down or [78—33] bottom up?

Q. Well, you can take from the top down as we are already at the top of it.

A. The top of the raise marked upon the map as R. 218 east at the intersection of the vein and the Osborne fault, for a short ways, probably a distance of ten or twelve feet, as shown upon the map, to the point, first bend in the raise as shown upon this map, there the vein appears on both sides of this raise 218 east, extending downward to a distance of probably twelve or fifteen feet as shown upon this map above the level shown as the 100 level and marked drift 105 east; the raise passes through the eastern extremity of this level and stopes which were driven upon the 100 level. Below the 100 level we have a fault on the north side of the raise and a vein on the south side,

(Testimony of William Clancy.)

and the same condition exists in this raise until we reach the 200 level, until we reach the top of the 200 level, because the raise was started on the intersection of the fault and the vein and was intended to be driven continuously on it, but at the bend near the top which I indicate with my pointer, it cut off just a little bit—

Q. Well, what portion of the vein have you shown in [79—34] that upraise?

Q. We have the apex of the vein or its termination on its upward course.

Q. What direction and what course do you proceed on other portions of the vein lying deeper in the ground from the portion you have designated as the top? A. Downward.

Q. And what course do you proceed from the point that you have designated in the upraise from the Apex drift to reach other portions of the vein underneath the surface? A. Downward.

Q. And what course do you proceed from the portion of the vein that is shown in your Apex drift to reach other portions of the vein underneath the surface? A. Downward.

Q. From your point where your upraise is shown on Exhibit 1 to connect with the 200 level or immediately above that level proceeding on easterly, please describe that working as you go along the two hundred level toward the easterly end line.

A. Beginning at a point marked 130 upon the map which the vein is in beneath the back and bottom of the drift, [80—35] extending eastward, the vein

(Testimony of William Clancy.)

gradually disappears from the back—that is not a good expression, but I mean it does not extend to the back. The last twenty feet of this drift simply as the fault—you could not distinguish any vein in the last twenty feet of the drift. The last we saw of the vein it is in the bottom of the drift.

Q. And what do you have to the north, what character of material to the north of this working where the vein is shown?

A. Quartzite; that is quartzite so far as shown by those workings.

Q. Are you able to identify or trace the vein as it is disclosed in the upraise from the 200 through the 100 to the Stewart tunnel level and immediately contiguous there through portions that you have designated as the top with the vein anywhere else throughout the mine?

A. It is connected with all other portions of the vein as shown throughout the mine.

Q. This being a plan map don't show all of your workings. What, in fact, have you in the ground between the upraise which we have heretofore referred to as extending into and above the Apex drift and the most easterly point where your [81—36] vein is disclosed on the 200 level to the east of the raise from that level; just describe to the Court generally, describe those stopes. We will have a stope map later to identify and show the exact extent, but I simply wish this as a general question.

A. The entire eastern portion of the 200 foot level from the 200 south crosscut east to raise 218 east is

(Testimony of William Clancy.)

stoped to the 100 level. The entire eastern portion of the 100 level is stoped from the 100 south cross-cut from a point marked 9907 eastward to near the point 9940.

Q. Designate that, please.

A. And stoped up to the tunnel level near the point marked 2571. There is stoping to a limited extent above the easternmost portion of the 100 level from point 9940 eastward, but those stopes do not extend to the tunnel level. The commercial ore pinched out and the stopes were not extended.

Q. Is some of the stoping you refer to here shown here on this map, by any of this map?

A. No, that is a sill floor work. It might be termed stoping, but it is all on the sill floor.

Q. Will you proceed from the point indicated as the [82—37] face or breast of the 200 foot level on Exhibit 1 through the upraise that is indicated in black parallel lines near and parallel, substantially parallel, to the easterly end line of the claim, and state to the Court what that working discloses now, what can be seen in it and what showed in it as the work progressed in which it was made.

A. The raise shown upon the map marked raise 314 east, beginning near the point marked 2551 on the map on the 300 level, was a raise on the true dip of the vein from the 300 level extending upward above the 300 level for a distance of between twenty-five and thirty feet on mineable ore. When the top of the ore was reached we had nothing but clay gouge and poor vein. Extending for a short distance above

(Testimony of William Clancy.)

that we met the fault which we call the Osborne fault. Then the raise extends up to the 200 almost vertically, about 75 degrees, along the fault; there is nothing but the fault plane and quartzite in the top of the raise.

Q. Please designate on the map those workings, the highest point on the vein that you can see as shown.

A. The highest point on the vein as shown upon this map is between the intersection as shown upon this map of raise 314 east and the Green working of points 2089 and 2082. I am [83—38] only using that to show the location.

Q. And what distance from the easterly end line of the Stewart Fraction claim?

A. Approximately ten feet west of the eastern end line of the Stewart Fraction claim.

Q. Following that upraise to its beginning, what is indicated there in the brown color on Exhibit 1?

A. 300 level of the Stewart mine marked drift 305 east.

Q. Now, please describe to the Court what is shown in the drift 305 east—did you say?

A. Yes, sir.

Q. 305 east, in this portion of the working connected with 305 east which is shown in brown below the raise to which you have just referred and immediately adjacent to and crossing the easterly end line of the Stewart Fraction claim.

A. A large body of ore in the place just described by you near the points 2093, 2068, 2551 and 2528.

(Testimony of William Clancy.)

Q. Well, what vein is that in?

A. It is in the Stewart vein.

Q. What does it show at the point of crossing the easterly end line of the Stewart Fraction claim?
[84—39]

A. At the point of crossing the easterly end line of the Senator Stewart Fraction claim near the point 2528 there is commercial ore.

Q. Is the top of the vein shown at that point—at any point there; if so designate the point and state how it is shown and how you determine it to be the top.

A. At a point approximately ten feet east of survey point 2528 the top of the vein is shown. The same condition exists in the drift shown eastward from point 2528 as I described on the 200 level. The point which I just described ten feet east of survey point 2528 we have the intersection of the vein and the fault, and proceeding eastward finally the vein is seen about ten feet west of survey point 2569 in the bottom of the dip. East of this we have nothing but the fault and quartzite.

Q. And what do you have to the north of the point that you have designated as the top—on upward what do you come to? A. Fault and quartzite.

Q. Describe the appearance to the Court of the ore at that point where the vein is shown against the fault or the face of the fault. [85—40]

A. At this particular place is a very good body of ore, four to five feet of first-class lead ore, against the fault at this particular place in the east end of

(Testimony of William Clancy.)

the three hundred foot level of the Stewart mine.

Q. Do you know what the extent of that ore is, how far that body of ore can be traced down so far as these other workings are concerned, or identified with other portions of the Stewart vein?

A. That is the same body of ore which has been mined all through the Stewart mine and the Ontario mine, the workings are on continuous mineable ore.

Q. How do you know it to be the same vein?

A. Well, you can follow on openings which *have made* for the purpose of extracting ore and can see the vein in all places, or I have done so following through stopes and raises and drifts, all connected on the vein.

Q. How have most of these workings been run, in what pursuit? A. In the extraction of ore.

Q. How many of them have been run; how many workings on this map can you designate as having been done for the purpose of development work in connection with this litigation; [86—41] just point out, if you please, to the Court how much of it is in the development and showing connection of this suit and how much in regular course of mining?

A. The drift shown in green upon the map east of survey point 2513 to and beyond survey point 2537; raise marked 415 east, and the little drift shown on the map on that raise eastward, was done for the purpose of litigation. Raise 415 east, the drift shown eastward from the top of this raise, was done by the Ontario Mining Company with the con-

(Testimony of William Clancy.)

sent of the Stewart Company.

Q. Designate to the Court, if you please, that part that was done by the Ontario Company.

A. Raise 415 east and drift from the top of this raise. Drift 305 east was extended eastward from a point—

Q. Show with the pointer on the map, if you please, so the Court can see it.

A. From a point east near the east end line of the Senator Stewart Fraction, is extended easterly upon the fault to its present face.

Q. Give the length of that drift, if you please.

A. Length driven for the purpose of this litigation is approximately forty-five feet. The entire raise marked [87—42] raise 314 east—

Q. Give the length of each working, if you please.

A. (Continuing.) —was driven from the 300 level to the two. Do you want the slope distance of these raises?

Q. Yes, sir.

A. I will have to calculate all those.

Q. Well, can you give it vertical at once?

A. I can give it vertical or give the horizontal distance as shown here.

Q. Well, give the horizontal distance, if you can do that more quickly without taking the time.

A. It shows a horizontal distance on the map of approximately sixty feet. Drift 205 east was extended eastward for a distance of approximately forty feet. Raise 218 east was driven from the 200 level to drift 5 east into the old lower Stewart tun-

(Testimony of William Clancy.)

nel. The horizontal projection as shown upon this map is approximately 155 feet. The workings shown upon the old lower Stewart tunnel marked east No. 3 crosscut was driven from near survey point 2550 to survey point 2515. The working along the vein known as drift 5 east was extended from 2515 to the present face, a distance of probably 250 feet. I believe I neglected [88—43] to give the length of No. 3 crosscut, which is approximately 170 feet. Also raise marked raise No. 3 east was driven from No. 3 crosscut at a point approximately 23 feet eastward of survey point 2503. Raise No. 4 east was extended from the top of the stopes above the workings shown as drift 4 east along the footwall of the vein to the surface. The tunnel was driven from the surface to the working shown as the Apex drift. The Apex drift was extended westward and eastward to their present faces. The crosscut was driven south upon the Apex drift opposite survey point 2519, a distance approximately of 30 feet. The length of the Apex drift westward from the top, from surface, approximately 7 feet, approximately 130 feet to the eastward. Also raise No. 7, a raise is extended up to the fault which cuts off the vein, thence backward along the fault to the tops of stopes showing the termination of the vein against the fault.

Q. You are speaking now of workings near the southerly—in the Senator Stewart below the southerly side lines of the Senator Stewart Fraction, are you?

A. Yes; No. 7 raise above the center of the Sen-

(Testimony of William Clancy.)

ator Stewart claim. [89—44]

Q. The other workings you have referred to previous to the last one are all within what claim?

A. They are all within the Senator Stewart—no, nearly all of them are within the Senator Stewart Fraction claim. The drift No. 305 east, extension eastward, is in the Switchback claim; also the drift marked 405 east extends eastward from survey point 2513, and the working I described from that is in the Switchback claim. Then in the Ontario claim is a raise which was extended by the Ontario Mining Company for the Stewart from the backs of the stopes in the Gray ore body to connect with the drift on the 300 foot level near the survey point 2507. This working was driven by the Ontario people for the Stewart showing the continuity of the ore body. I believe that is all the work we did for the litigation. There is a raise marked raise 2 west which was done before the preliminary hearing in this case.

Q. Along the southerly side line of the Senator Stewart Fraction?

A. Yes, sir. It shows the apex of the vein being cut off, which served a very good purpose in the litigation.

Q. But it was not done in connection with this litigation? [90—45] A. No.

Q. Was the crosscut tunnel and the Apex drift and the crosscut in the vein for the hanging-wall in the Apex drift done since the hearing of the injunction in this case? A. It was.

Q. What other work has been done since the in-

(Testimony of William Clancy.)

junction, or what connections have been made since the injunction hearing?

A. Most of this work which I have just described was done since the injunction hearing. The connection between the ore body shown in the working marked drift 4 east to the apex, and the Apex drift both east and west, the connections of ore bodies shown by drift 4 east southward through drift No. 3 east, and through raise No. 3 east, to the stopes above drift 5 east; also the extension of drift 5 east to the apex of the vein shown near survey point 2584; raise 218 east was driven, extension of drift 205 east, raise 314 east, extension of drift 305 east to its present face. The working shown and marked drift 405 east between survey points 2513 and a little beyond 2537; also the raise 415 east and the drift from the top of that raise is all done since then, and the raise marked upon the map [91—46] as Gray raise has been done since that time. And raise 223 W. has been extended on mineable ore to the tunnel level since the injunction hearing. At that time we were within fifteen or twenty feet of the top. Since then it has been extended to the tunnel level and connected on the vein.

Q. The last that you refer to was connecting the 200 level? A. 200 level to the tunnel level.

Q. In what claim?

A. In the Senator Stewart claim.

Q. And the one immediately preceding that, in what claim was that?

(Testimony of William Clancy.)

A. Where I described the Gray raise?

Q. Yes. A. That was in the Ontario claim.

Q. Mr. Clancy, I notice on this map in blue in the westerly portion of the Senator Stewart Fraction claim designated certain workings. Please say whether or not they are on a vein, any part of this is on a vein. A. You ask if they are on a vein?

Q. Yes, sir, or intersect a vein.

A. The workings marked drift 2 west, 45 foot level — [92—47]

Q. In yellow?

A. 35 foot level is marked in yellow; drift 2 east, and the workings drift marked one east are upon veins.

Q. Please state whether or not those veins have any connection with the vein in the Senator Stewart Fraction upon which the stopes and workings of which you have testified are driven.

A. No; they do not have any connection.

Q. Well, have you any reason to say that they are not? If so, state to the Court what it is.

A. The reason I have to say that they are not is because I have no knowledge to say that they are.

Q. There is no connection between the two?

A. There is no connection between them.

Q. At what point from the old lower Senator Stewart tunnel as you enter along the course of that tunnel do you encounter a vein that can be identified as the Senator Stewart vein or the Stewart vein upon which the workings of the Senator Stewart Fraction mine are located?

(Testimony of William Clancy.)

A. Entering at the portal of the old lower Stewart tunnel where the works appear upon the map going in a southerly direction and turning to the left at survey point [93—48] 9504, thence along the level in a southeasterly direction, running by where the words “Deering crosscut” appear, to a point near survey point 8962, the Stewart vein was encountered. [94—49]

Q. Designate with your pointer the point where that vein was intersected by the tunnel, if you please. A. There.

Q. What working on the vein extended from that point, if any?

A. The working extended eastward marked Drift 4 east, and westward, marked Drift 4 west, extended on the vein from that point.

Q. You have already followed the upper, or what is called the east No. 3 crosscut, as shown upon that level in blue. Now, take please from the point here and follow the southern branch, and state to the Court what that includes, following from the point here; you can see it, and please designate that point.

A. Beginning near survey point 9962 the vein existed with commercial ore of considerable width at that point.

Q. How wide was your commercial ore at that point?

A. Five or six feet or six to eight feet. I think it was about eight feet wide.

Q. And what character of ore?

A. Good commercial ore, shipping ore.

(Testimony of William Clancy.)

Q. What is your commercial ore in that vein?
[95—50]

A. Galena. It simply depends on the quantity of Galena, the value of the ore. Then the crosscut which is shown upon the map marked Deering Crosscut extended in quartzite, evidently underneath the vein from the relation of other workings it is known to be.

Q. When do you encounter the vein in that crosscut?

A. On or about point 33 we encounter the vein, above which a drift was driven east and west from survey point 43 on the vein, and stoping has been done above drift 5 east and drift 5 west.

Q. In here? A. In here and here.

Q. To what extent has stoping been done in drift 5 east from the point where the crosscut intersects the vein again in an easterly direction?

A. Stopping was done above drift 5 east between survey point 127 and 43 for a vertical height of about 21 feet, that is, three floors. There the vein is flat, and also poor. Stopes above this No. 5 east.

Q. Now you say "flat." What do you mean by that?

A. At the point 20 feet above the level—it was prosecuted to a height of 21 feet, three floors—
[96—51]

Q. Could the vein at that point be still distinguished as you went up from the commercial ore onto the vein material?

A. Oh, yes, the vein could be distinguished, but it

(Testimony of William Clancy.)

was not profitable to remove it.

Q. How high did that vein extend at that point?

A. The vein at the point in the top of the stopes above survey point 43, this raise No. 3 connects these stopes with the east No. 3 crosscut on the vein.

Q. How much of the vein is exposed above the portion containing your commercial ore or galena in that working?

A. It is irregular; in some places in the stopes we see five to ten feet sometimes of material containing specks of galena, but it is not commercial ore. The hanging-wall is not determined at any particular point in there, that is, in the stopes.

Q. Have you the walls disclosed at any other portion of the workings in there than the stopes, the walls or either of the walls of the veins?

A. In the westernmost portion of this 5 east, near survey point 77, we have the hanging-wall exposed.

Q. What did you have in character of material in the [97—52] crosscut that you have designated as running between the points 9962 and the point 43?

A. There was quartzite in that crosscut.

Q. To what extent has stoping been done in the easterly branch of this working indicated as drift No. 5 west?

A. Stopping above the branch marked "Drift 5 West" was at various heights up to five floors or thirty-five feet. The stopes of the height of 35 feet is approximately over the point marked "Survey Point 45."

Q. What did you have in the back of the stopes at

(Testimony of William Clancy.)

that point after you had taken your galena or commercial ore out?

A. Well, there were in the back of those stopes we had the vein of poor material, not profitable to remove.

Q. Were the walls disclosed in the stopes at that point or either of the walls?

A. My recollection is that height wall was disclosed in the stopes at that point.

Q. What is the blue marking at the extreme end of drift No. 5 west where it takes a turn up in a northerly direction? [98—53]

A. That is a crosscut.

Q. What is the crosscut in? A. I don't know.

Q. Have you ever seen that crosscut?

A. I have never seen this particular portion of it; it was one of the workings which was driven before I went there.

Q. Now, going down from the point where you indicated the vein on the southerly branch of the old lower Stewart tunnel, please describe that from the point where it connects with your main branch as far as it discloses any ore bodies, and describe to the Court the conditions there above as they can be seen now and as you found them as any of the work might have progressed; I understand that that portion was driven while you were employed by the Stewart; is that right?

A. No, this part was driven before I was employed by the Stewart. The stoping was done afterwards.

(Testimony of William Clancy.)

Q. When you got there, what occurred there as the work progressed?

A. There were stopes for the entire distance in the easternmost portion of the old lower Stewart tunnel from [99—54] a short distance east of the raise marked "Raise 4 East" to the southwesternmost end of the level—the stopes were all in mineable ore, of various widths from five to fifty feet. The easternmost portion had an average width of probably 30 feet. The vein was continuous and unbroken until near the top of the stope, until it reached a portion between the raise marked "No. 7 Raise" and the southernmost end of the level marked "Old Lower Stewart Tunnel Level," at which point the vein was cut off by a fault on the upward course, and also in the working marked "No. 7 Crosscut" and near the top of No. 7 raise the vein was cut off by the fault at the top of the raise marked on the map "Raise No. 2 West" the vein was cut off by a fault, but otherwise it was continuous from one end to the other.

Q. The raise that you have just referred to where the top of the vein is shown is along what line?

A. It is along the south side line of the Senator Stewart Fraction.

Q. Now, confining yourself, please, to the portion of the southerly branch of the old lower Stewart tunnel lying between the intersection of the vein in the old [100—55] lower tunnel, main branch, and the up-raise along the southerly side line of the Senator Stewart Fraction, please show the different raises made from that level, what they contain now and

(Testimony of William Clancy.)

what was seen in those that were driven after your connection with the Senator Stewart Mining Company as the work progressed?

A. There is a raise marked "Raise No. 6 West" upon the map; that merely indicates a raise; it does not purport to show the height of the raise. From this raise No. 6 west about 15 feet in vertical height above the old lower tunnel level is a drift on the vein extending eastward marked in purple, continuously on the vein to the stopes above the portion of the tunnel level marked "Drift 4 East." The raise marked "Raise No. 6 West" extends upward in the stopes; this was a *raise* that was put up for mining purposes. About the same distance above the tunnel level the ground has not been removed from the west side of this raise, but near the top it was all removed; the vein was poor in that portion of the ground between raise 6 west and No. 9 raise. Then, going along the vein beyond this shaft marked "Shaft No. 1" to raise No. 2 west—raise No. 2 west was put up in the footwall just beneath the stopes [101—56] until near the top, when it was turned upward to catch the vein probably 20 feet above the top of the stopes. After finding the vein the raise was extended about 15 feet along the vein, and meets the fault which cuts off the vein and terminates it on its upward course.

Q. Now, take that branch of the tunnel, lying south of the southerly side line of the Senator Stewart Fraction and describe what is seen in that portion of the workings and what has been driven from it.

(Testimony of William Clancy.)

A. I am not familiar with what was found a short distance above the level, but from the stopes which I have been through extending from approximately near raise No. 2 west to the top of the raise marked "Raise No. 8" in which the vein is shown, it is inaccessible at present, but the vein is there and it shows ore, poor, and extending along the tops of the stopes to the place in the stopes near where it is marked "No. 7 Cut." There is shown the tops of the stopes which the vein *vein* terminated by the fault, which has a northerly course and dips westerly. The same condition is shown at the end of the stopes as we have them open up to the raise as indicated near the southwest end of the tunnel, this old lower Stewart tunnel; the [102—57] ground southwest of that has not been mined.

Q. What is shown in near the breast of the old Stewart tunnel near the southerly side line of the Senator Stewart and up in there, anything of importance? A. There is a poor vein.

Q. What is shown in the raise that runs from the Senator Stewart tunnel, run from the 200 foot level of the Stewart mine, connecting with the old lower Stewart tunnel, and designated on the map as Raise No. 223 west?

A. It is extended on mineable ore from the 200 level of the Stewart mine from a point near survey point 2073, upward to old lower Stewart tunnel near survey point 9529.

Q. Your stoping will, of course, appear in the detail of the stoping exhibit when that is identified, and

(Testimony of William Clancy.)

offered in evidence, but I will ask you if, taking the points that you have already designated on this exhibit where the vein has been worked and where you have proceeded to its top on the entire course of the vein, whether any projection has been made of the footwall of the vein to determine the continuous line of the apex.

A. The portion from the west face of the Apex drift [103—58] to raise No. 2 west, that has been projected from the top of the stopes for a short distance; the stopes extend for the entire length.

Q. Has that projection been shown on any other exhibit to be offered?

A. It has been shown or is being shown; it is put upon the map, but I don't think the map is finished yet.

Q. That will be shown on another exhibit?

A. Yes, sir.

Q. Please state to the Court whether or not the workings have progressed, the development done on this, with the projections of the footwall in the mined portion of the vein where it appears to project and determine the true course of the apex and its position with reference to the surface boundaries of the Senator Stewart Fraction claim.

A. I think there has been enough work done to show the entire apex. We have the point on the south side line where the top of the vein crosses; we have extended the stopes to the Apex drift.

Q. Have you prepared another map now, that shows where you claim that that apex exists?

(Testimony of William Clancy.)

A. Yes, sir. [104—59]

Q. Now, please indicate in a general way on the plan map, Exhibit 1, to the Court, the course of that apex within the Senator Stewart Fraction boundaries from the point where it crosses those boundary lines.

A. The apex crosses the end line of the Senator Stewart Fraction claim near survey point 2528 a short distance north of that point, and extends in a northwesterly direction to a point near survey point 130 on the 200 foot level, northwesterly along to the eastern face of drift No. 105 east, thence to the tunnel level near survey point 25A, thence the Apex drift, the face of it is now shown, along in the Apex drift to its western face, thence southwesterly to the top of raise No. 2 west.

Q. What line does it cross at the top of raise No. 2 west?

A. At the top of raise No. 2 west it crosses the south side line of the Senator Stewart Fraction.

Q. What is the surface of the mountain at the point where this apex on its course turns from the northwesterly course as you go from the east end line and takes its southerly course or southwesterly course?

A. You mean to describe the contour of the mountain? [105—60]

Q. Yes, in a general way.

A. The contour of the mountain is about the same line of our apex; it goes in a southwesterly direction from the level of the tunnel or Apex drift, and about in the direction shown by my pointer, extending eastward in an eastern line, and crossing to the north

(Testimony of William Clancy.)

side line of the Senator Stewart Fraction near the points 4 and 6.

Q. Does the mountain on its northerly slope or northwesterly slope go into any gulch that has a name or designation?

A. The mountain on its northwesterly and easterly side slopes in both directions. The eastern end line of the Senator Stewart Fraction is just on top of a hill, and the ground slopes in both directions, and on the eastern side it descends into Deadwood gulch.

Q. And on the north?

A. On the north it slopes down into a gulch over south from the Senator Stewart tunnel, I don't know the name of it, Yellow Dog gulch it is sometimes called, I believe.

Q. Where is the highest point of the mountain with reference to all of the workings that are shown on Exhibit 1? [106—61]

A. The highest point of the mountain is the southernmost portion of the map, about the center of the south line of the map.

Q. And where is the highest portion with reference to the workings in the Senator Stewart Fraction?

A. About the center of the claim is the highest point, extending along the top of the ridge.

Q. About the center of the claim?

A. From the center of the claim; the mountain extends upward from the northeast corner of the claim to a point about the center of the claim, and then along the flat top of the ridge to the southeast corner.

(Testimony of William Clancy.)

Q. Now, you are following on the line of Senator Stewart Fraction, the easterly end line?

A. Yes, sir, the highest point is on the eastern end line.

Q. Now, in going from your northeast corner to your northwest corner, what is the course of that line? A. About north 63 to north 70 west.

Q. What is the elevation of your northeast corner, compared to the elevation of your northwest corner?

A. It is somewhat higher than the northwest corner; [107—62] the northeast corner is somewhat higher than the northwest corner.

Q. Have you a map of that?

A. Yes, we have a map with the contour lines and all of that on it, which will be shown.

Q. How is the point of your apex immediately where this turn in the course of your vein occurs as it goes from the east to the northwest and turning, with reference to the elevation of your highest point or apex at the easterly end line, of the Senator Stewart Fraction?

A. You ask for the relative elevation?

Q. Yes.

A. There is approximately 400 feet difference in elevation. The point where the apex crosses the eastern end line of the Senator Stewart Fraction is approximately 400 feet below the Apex drift.

Q. And how is the surface of the mountain at that point or between those points?

A. It is highest at the point where the apex crosses the eastern end line of the Senator Stewart Fraction,

(Testimony of William Clancy.)

and descends toward the Apex drift.

Q. And how is the elevation of the apex as shown here [108—63] on the northerly portion, with the apex as shown here in the raise at the southerly side line of the Senator Stewart Fraction?

A. That is a little lower, about 25 feet lower. The Apex drift is about 25 feet lower than the apex as shown in raise No. 2 west.

Q. What dip has the vein from its apex as you have outlined it on this exhibit, from that apex, and we will say between that apex and the old lower Stewart tunnel level?

A. It is approximately 45 degrees; it varies.

Q. What is the difference in elevation between your point at the apex as you have outlined it on this map, connecting with the end line, with the apex of the vein in the upraise 10 feet from the surface above the Apex drift, and the ore bodies in the Ontario mining claim?

A. The ore bodies, the workings shown on the map are the Frank drift, the May drift, and the Gray drift, which are upon the ore bodies in the Ontario, and are on a lower plane than any portion of the apex which I have described as extending from the east end line of the Senator Stewart Fraction, along the Apex drift and to the top of raise No. 2 west. [109—64]

Q. Does the Stewart vein as it descends downward into the earth maintain a regular and uniform dip, or is it variable at different places?

A. It is variable at different places, and between

(Testimony of William Clancy.)

different levels, within a small range.

Whereupon further hearing was adjourned until
2 P. M. [110—65]

Monday, January 6th, 1913, 2:00 o'clock P. M.

Trial resumed.

WILLIAM CLANCY resumed the stand for further

Direct Examination (Resumed).

(By Mr. DINES.)

Q. Mr. Clancy, you were asked about the plane of elevation of the apex as you have outlined it on Exhibit 1 as compared to the plane of elevation of the ore bodies of the Ontario Mining Company. Have you the elevations in figures?

A. Not upon this exhibit.

Q. Have you them in any memoranda that you have with you now?

A. No; we have them on the cross-sections which will be introduced later, but I remember the elevations or the approximate elevations.

Q. Well, if you can approximately state the difference in elevation of the line of apex that has been traced by you upon Exhibit 1 and the ore bodies in the Ontario claim?

A. The elevation of the Silver King tunnel level or [111—66] the drifts which are marked Frank drift, May drift, and Gray drift in the Ontario mine are approximately the same elevation as the elevation in green which is marked upon this exhibit as 400 level, which is from the datum plane which was used in all the elevations on the Stewart mine; 2600 that

(Testimony of William Clancy.)

is very near the elevation above sea level and the elevation of the Apex drift is approximately three thousand.

Q. And your difference in elevation then between the Ontario ore bodies and the apex would be what?

A. The difference between the elevation of the drifts in the Ontario mine and the Apex drift would be approximately four hundred. I may have made a mistake this morning when I was asked about the apex which crosses the east end line; I was using the elevation on the four hundred at that time. If I did answer the question with that elevation, I should have made it probably sixty-five feet less elevation, that is, as it crossed the end line it is just above the three hundred level and not on the four hundred level.

Mr. DINES.—We will ask your Honor to permit the witness to make that correction in his testimony.

The COURT.—Yes, sir; the correction will be noted. [112—67]

Mr. DINES.—Q. You put the crossing of the end line on the Stewart tunnel level instead of above the Stewart tunnel level?

A. I think I used the elevation of the Stewart tunnel level when it should have been the 300 level, or approximately sixty-five or seventy feet higher.

Q. What do the lines marked in Roman notation, I, II and III and IV and V and VI on Exhibit 1 indicate?

A. The lines as marked by the Roman numerals in red letters upon Exhibit 1 represents the intersec-

(Testimony of William Clancy.)

tion of a vertical plane with the horizontal plane upon which the entire map is projected; that is, these are what we call lines of section. There are vertical planes pass through the ground intersecting the horizontal plane of these lines.

Q. Are the cross-sections to which you have referred in the early part of your testimony cross-sections made by planes projected along the lines referred to at their points of intersection with this map?

A. They are cross-sections along these lines. Each cross-section is all made looking westward; that is, when you were standing to the east and the vertical planes were passed, removing all downward, through the earth, removing [113—68] all the portion of the ground east of that plane, and you were looking upon the face as cut in that way.

Q. I will interrogate further on that when those are produced. Referring you to the level colored in blue, designated here by the pointer on the map and called—what designation is that? That is the Deering crosscut clear through, is it? I will ask you if any portion of the vein is shown in that crosscut?

A. Yes; the crosscut is run underneath the commercial ore, but in that crosscut the quartzite is impregnated with mineral to a certain extent. This mineralization extends above the commercial ore, and that crosscut is entirely in part of the vein. The whole section of country from the drift on the map marked drift 5 east and drift 5 west, northward and westward, the portion of the map marked drift 4 east

(Testimony of William Clancy.)

between the survey points in drift 4 east at No. 2090 and the point marked 9522, there is a fold in the vein.

Mr. GRAY.—Won't you just point as you go along?

Mr. DINES.—Just point as you go along so the numbers will be shown.

A. The portion of the mine in the eastern portion in the old lower Stewart tunnel as marked drift 5 east and [114—69] drift 5 west, across to the portion marked drift 4 east between survey points 2090 and survey point 9522, is in a fold of the vein. That drift 5 east and west is the same elevation or approximately the same elevation as drift 4 east. The vein is only a short ways above the elevation in the intermediate territory; that gives the appearance of a very wide vein there, whereas it is practically a horizontal vein in that particular portion.

Q. Now, from that portion down, what is the dip, that is, from the seam where that fold or waving condition of the vein that you refer to ceases on the most southerly point, what from that point on down is the dip of the vein?

A. In the eastern portion of the mine under drift 5 east downward the dip is approximately fifty degrees, from the tunnel level down to the 400 level. This only applies to a section of the vein, approximately 200 or 250 feet in length, that particular dip.

Q. Yes. What is the dip of the vein as it is shown in the top or terminal edge of it and in the raise above the Apex drift?

A. About forty-five degrees in the raise.

(Testimony of William Clancy.)

Q. What is it in the stopes with which that raise connects? [115—70]

A. The dip from the tops of the stopes through which raise 4 east is shown the dip is approximately forty degrees.

Q. What is the dip of the vein as shown at the point where the Osborne fault is encountered and where the vein lies up against the fault in the level immediately above raise 218 east?

A. The dip of the vein near the old lower Stewart tunnel level near survey point 2584 at the top of raise 218 east is approximately fifty-five degrees at that particular point.

Q. Have you made any estimate of what is the average dip of the vein from its apex into the Ontario workings, or will that be shown by your cross-sections entirely?

A. I have not made any calculation as to the average dip from the apex into the Ontario workings, but we have cross-section 1 which will show the inclination of the vein from the Apex drift through the workings of the Stewart mine into the Frank ore body of the Ontario workings.

Q. I will ask you if, taking the extreme point or upper terminal edge of your vein as you have disclosed it within the lines of the Stewart Fraction, and going from that to [116—71] the Ontario ore body, if your course is—what is your course?

A. The course is downward from the apex of the vein into the Frank ore body of the Ontario workings, as will be shown on section one. The course is

(Testimony of William Clancy.)

downward from any point along the apex, a line parallel to the east end line of the Senator Stewart and to the ore bodies of the Ontario.

Q. That is, you mean any point as it goes from its—you take it, if extreme east of the point here as it crosses the easterly end line of the plane and go on then in your northwesterly course until your point in the upraise, the course is as you have stated it?

A. In the Ontario we have no ore body developed in the plane of the east end line of the Senator Stewart Fraction.

Q. I will ask you again about that, then. Take a point from the point where your apex crosses your easterly side line to the point where your lowest ore body is exposed—

The COURT.—You say “your easterly side line.”

Mr. DINES.—Q. East end line, to the point where your ore body is exposed, such as is known and developed, what is your dip?

A. To the lowest ore body?

Q. Yes, to the ore body that is known to exist—you [117—72] say it is not developed here in the Ontario in the end line? A. No, sir.

Q. Take the ore body that is developed next to the end line, the last one that you have, what is the course there?

A. The Gray ore body as shown in the drift marked upon Exhibit 1 as Gray drift, pass a vertical plane parallel to the east end line of the Senator Stewart Fraction, and the course is downward from the apex into the Gray ore body.

(Testimony of William Clancy.)

Q. Go on to the northwestward and take your next point and project it down into the ore body of the Ontario.

A. You mean take the next section or take a series of points?

Q. Now, take the next section.

A. The next section is marked section four, or section six.

Q. Take section six; what is that?

A. Going from the point on the apex as shown in raise 218 east along the ore body to the ore body shown in the Ontario, the course is downward.

Q. Take your section IV, and from your apex point to that ore body, where is it?

A. The same as in section six. It is downward [118—73] from the apex as shown in the eastern face or near the eastern face of drift 105 east along the vein. The Ontario ore body of course is downward.

Q. And section V, the point where that ore body crosses the apex line and the point where it crosses your Ontario ore bodies, how is it?

A. In section five we have not developed the absolute apex, as we see ore in the top of the dip on the tunnel level marked drift 5 east near survey point 2571. Passing from that point, the last place we see the vein, and it is in the back on its upward course, going downward continually to the Frank ore body of the Ontario. This point 2571 which I have described has the ore showing above it in the back of the drift, is approximately sixty feet west of the

(Testimony of William Clancy.)

point where we have the apex shown in drift 5 east.

Q. What is the next working level of your mine below the Stewart tunnel that is colored in blue, marked the old lower Stewart tunnel in blue, on Exhibit 1—what is your next lower working?

A. The level marked on the map is 104 intermediate; is colored in green.

Q. That is the light green color, is it? [119—74]

A. A light green.

Q. How is that intermediate level connected with your Stewart tunnel level?

A. As shown upon the map it is connected by raises; one raise marked 105 raise, and the other two raises are unmarked, but the 104 intermediate level has been connected continuously from the western most raise which is shown near survey point 9514 eastward to 105 raise by stopes; the entire ore body has been removed from 104 intermediate level to the tunnel level.

Q. Then that is no longer used as a working level, the intermediate level and it has been stoped out from where; give the points, please, so his Honor can tell from this map where the stoping out has been done. We will show that on the stope map, however, better.

A. Stoping has been continuous from a point near survey point 9971 westward to survey point 9978.

Q. Mark those points with your ruler, please.

A. Survey point 9972 westward to approximately survey point 9978; these sections shown in white have been stoped.

Q. Are the upraises to which you have referred

(Testimony of William Clancy.)

connecting the 104 intermediate with the old Stewart lower tunnel level raises on ore? [120—75]

A. Yes, sir; the raises are on mineable ore.

Q. What do they follow; do they show either wall?

A. 105 raise has the footwall of the vein and pay ore, a pay streak in it, but I do not think the hanging-wall shows there.

Q. And what does the next raise to the south show?

A. That raise was extended from the 104 intermediate on mineable ore to drift 4 west, old Stewart tunnel level.

Q. And the raise marked to the extreme south of 104 intermediate?

A. That was also driven on mineable ore to the old lower Stewart tunnel.

Q. Do those two last raises show the walls of the vein or either wall?

A. I am not positive as to whether the walls are shown in those raises or not; it has been sometime since they were driven; and I know they were driven on commercial ore, but I am not positive as to the fact as to whether the walls are shown or not.

Q. What is the branch from the intermediate level colored in light green that runs between raise 100C, or near raise 100C? [121—76]

A. That is a crosscut.

Q. And connecting with what?

A. Connecting the drift on the 104 intermediate level near survey point 9566 to the top of raise 100C, which is a raise from the 100 level up to the intermediate level.

(Testimony of William Clancy.)

Q. What is the distance from the intermediate level to the lower Stewart tunnel level?

A. A vertical distance of approximately forty feet.

Q. Do the stopes that you have referred to break into the level known as the lower Stewart tunnel level?

A. The stopes above the 104 intermediate which I have described break into the old lower Stewart tunnel level.

Q. Has the intermediate 104 level any other works on it than that shown on this exhibit, any extension or connections other than shown there?

A. Nothing on that elevation. There are stopes above it.

Q. What is the next lower working level?

A. I beg your pardon. There are stopes from the 100 level, on the same elevation as the intermediate, but they are not shown. They are shown on the stope map.

Q. They are shown on the stope map? [122—77]

A. Yes, sir.

Q. What is the next working level below your Stewart tunnel level and below the 104 intermediate?

A. The 100 level.

Q. How is the 100 level marked on Exhibit 1—what color?

A. It seems to be an orange. It is marked 100 level.

Q. It is marked 100 level?

A. There are various workings from it, drift 105 west, drift 105 east, west 105 crosscut.

(Testimony of William Clancy.)

Q. Are there any workings on that 100 level, any portions of it that are not shown on this exhibit?

A. None on the level, on the sill.

Q. What is the next working level below the 100 level, and how is that colored on the map, Exhibit 1?

A. The 200 level; and that is colored in orange, marked 200 level.

Q. How is the Stewart tunnel level colored in blue connected with the one hundred level?

A. Connected by means of an incline shaft marked shaft No. 1 on Exhibit 1.

Q. That is, this shaft here (indicating)? [123—78] A. Yes.

Q. Where is the 100 level connected with the 200 level?

A. The 100 level is connected with the 200 level by means of the shaft marked shaft No. 1 on Exhibit 1; besides both levels are connected by stopes.

Q. I will have some other questions to ask as to that, but before going to that, I show you Plaintiff's Exhibit 2 designated "stope map of the Stewart mine, Stewart Mining Company, scale one inch, 30 feet," and ask you under whose direction and supervision that work was done.

A. It was done under my direction.

Q. What data were used in the preparation of that exhibit?

A. Surveys, levels and stopes as made by me.

Q. Did you furnish the data from your own surveys? A. I did.

Q. Are you familiar with the location on the

(Testimony of William Clancy.)

ground of the object that this Exhibit 2 purports to represent? A. I am. [124—79]

Q. Have you examined this exhibit to know whether or not it checks with the data of your own observations and surveys or as the work progressed from time to time in the Stewart Mine?

A. I have. It does check. The only point I see the matter is that the stopes should be connected at the end of 104 intermediate with the tunnel level as shown on Exhibit 1 by the raise near survey point 9514 on the old Stewart tunnel level.

Q. Please mark with a pencil the connection that you refer to. A. (Witness marked the map.)

Q. Now, are there any other points on that map or exhibit, other than the one that you have designated, that you think should be connected?

A. That is the only omission I see. I looked over this map very carefully and I did not notice that one, but otherwise, I think it is correct.

Q. I find here a working on Exhibit 2 marked "Apex Drift." Please state whether or not that is the same working which is shown on your plan map.

A. The Apex drift on Exhibit 1 is the same as the [125—80] Apex drift on Exhibit 2.

Q. I notice from that point an upraise which is shown on this exhibit. Please state what upraise that is, if it is the same one you identified in connection with the Apex drift in Exhibit 1.

A. The upraise shown from the Apex drift on Exhibit 2 is the same raise as designated as raise No. 4 east on Exhibit 1.

(Testimony of William Clancy.)

Q. Now, when you were being examined in connection with Exhibit 1, you referred to certain stoping that had been done below the Apex drift and from which that raise was driven. I will ask you to state what this designates in red?

A. The red portion of the map bounded by black lines is a representation of the stopes, as if you were placed an infinite distance above that, and were looking down upon that. The representation is on a horizontal plane; it is a plan map of the stopes.

Q. Does that apply to the red with the black border lines irregular in shape all over Exhibit 2?

A. It does.

Q. I see the blue lines beginning north of the [126—81] northerly side line of the Senator Stewart Fraction and going down with its branches, have no printed designation on Exhibit 2. Please state what that is with reference to Exhibit No. 1.

A. That is the old lower Stewart tunnel.

Mr. DINES.—It is suggested, if the Court please, that this map was not quite completed when it was sent here, and we wish before it is offered in evidence to make those corrections or completions, or rather, to complete the lettering.

The COURT.—Leave is granted to complete the map.

Mr. DINES.—We will do that, and we will offer it in evidence, and we ask leave to examine the witness upon it as if it were complete.

The COURT.—You have leave to examine the wit-

(Testimony of William Clancy.)

ness and to illustrate his testimony by reference to that map.

Q. The blue that is shown here at the end of my ruler, immediately under the red stopes below the Apex drift, is what?

A. The working which you have just described upon Exhibit 2, marked in blue below the Apex drift is the same working which is shown in blue on Exhibit No. 1, and marked [127—82] “Drift No. 4 East,” near the bottom of the raise marked, “Raise No. 4 East” on Exhibit 1.

Q. Now, Mr. Clancy, I will ask you, please, to take this Exhibit No. 2, and explain to the Court in your own way and in your own language the extent of the stoping that is shown here; state upon what veins it is done, and show all the different points of connection between the different stopes that you can show upon the map or that you know to be in the ground. Start at your own point and take your own way.

A. All of the stoping that is shown upon this map, excepting the stoping which is shown approximately 100 feet north of the letter “S” in Senator of the title “Senator Stewart Fraction” and the stoping which is shown approximately south 100 feet of the letter “S” in the word Senator in the title “Senator Stewart Fraction”—all the remainder of the stoping which is designated in black boundary lines and painted in red is upon the Stewart vein. Beginning at the easternmost and upper end of the stopes above the old Stewart tunnel level and going southwestward, the stoping was continuous above the

(Testimony of William Clancy.)

old Stewart tunnel level almost to the southern boundary of the [128—83] Senator Stewart claim. Below the old Stewart tunnel level there was some stopes shown above the 104 intermediate as marked on the map. Immediately below and westward of the point *which designate* and have marked on the map “104 Intermediate,” where the white space is shown, the ore has not been stoped out but remains there in place as shown by the raise extending from the stopes above the 200 foot level to the old lower Stewart tunnel level.

Q. When you describe this space, this is the space you are referring to. A. That is the space, yes, sir.

Q. Will you kindly designate it on the map by reference or measurement so that it can be designated in the record; otherwise the record will not show to what particular portion of the map you refer?

A. The space that I am describing extends south-eastward from the portion of the old lower Stewart tunnel that is covered by the name “Old Lower Stewart Tunnel” for a distance of approximately 140 feet along the course of the vein.

Q. And in what claim?

A. In the Senator Stewart claim. Beginning at the [129—84] point from which I started, the stopes from the Apex drift, the stopes extend downward to the old lower Stewart tunnel level; then you pass through the portion of the vein that was not profitable into the stopes above the drift which is marked “Drift No. 5 East” and “Drift No. 5 West” on Exhibit 1. The stopes are approximately 200 feet

(Testimony of William Clancy.)

long and extend upward above the tunnel level for a vertical height of 20 feet. Stopping is then continuous below drift No. 5 east and No. 5 west to the 400 foot level, and westward through the 104 intermediate into the stopes above the old lower Stewart tunnel level at a point which is marked "Survey Point No. 9514" on Exhibit No. 1. The southwestern boundary—a portion of the ground which has been stoped extends from the raise which is marked upon Exhibit No. 1 as raise No. 100C downward below to the 100 foot level and below the 100 foot level to the 200 foot level and downward to the stopes above the 300 foot level and down a raise which is on the vein, containing galena, into the drift on the 300 foot level. There has been no stoping above the drift which I designate with my pointer, and which begins on Plaintiff's Exhibit No. 1 at survey point 2567; there has been no stoping done by the Stewart [130—85] Mining Company on this drift, but the Gray stopes from the Ontario Mines extend upward to this drift, the 300 foot level of the Stewart mine. Beginning at the top of the raise which is designated on Plaintiff's Exhibit 1 as Raise No. 223 west, going downward on commercial ore, there has been stoping done for approximately 250 feet in length above the 200 foot level, about 35 feet in height above that level. Going downward from the 200 foot level through a raise which was driven upon commercial ore and designated upon Plaintiff's Exhibit No. 1 as Raise No. 328 west to the stopes above the 300 level. Stopping is now going on at the

(Testimony of William Clancy.)

present time in these stopes. Thence downward to the 300 foot level along mineable ore from the 300 foot level into the stopes on the Frank ore body of the Ontario mine. Thence downward—

Q. Before you get to that, how is the connection which you have designated as an upraise between drift No. 305 west and the Frank ore body designated on Exhibit 1?

A. The connection between the Frank ore body and the drift marked upon Exhibit 1 as Drift 305 west is connected by a raise marked “Frank Raise No. 1.” It connects with the 300 foot level of the Stewart mine at a point [131—86] approximately 30 feet southwest of survey point 2112.

Q. Now, go ahead with your story and follow that down into the other stopes.

A. That raise which I have just described, which is marked on Plaintiff’s Exhibit No. 1 as Frank Raise No. 1, is shown by parallel black lines upon Plaintiff’s Exhibit 2. Both sides of this raise stoping has been done, and the ore bodies stoped out from the Frank drift to an elevation which is the same as the 300 foot level of the Stewart mines.

Q. Now, is the stoping in red shown in the Ontario claim to the east of the stope which you have just described connected in any way with the last stope described and which you have called the Frank ore body?

A. It is connected with the Silver King tunnel level of the Ontario mine by means of a crosscut.

Q. What are those workings on Exhibit 2, and also

(Testimony of William Clancy.)

shown on Exhibit 1 coming from the most easterly stope in the Ontario up into the other workings?

A. The working shown in brown upon Plaintiff's Exhibit No. 2 is a drift along the vein on the 300 foot level as I have shown it. It is on the vein to the point where I am [132—87] now pointing, which is the bottom of raise No. 314 west, as shown on Plaintiff's Exhibit 1. Proceeding from that point the working is underneath the vein in the footwall, and proceeding as I am pointing with my pointer until we again encounter the vein near the point where the "3" of "300 Foot Level" appears, which is near survey point 2113 on Plaintiff's Exhibit No. 1. At that point the vein was encountered and drifted on and some stoping has been done above it. It is on continuous mineable ore to the stopes above the Frank ore body.

Q. In what way is the point from which you have come in tracing the connection between what is designated as the May and Gray ore bodies to the Frank ore body connected with any stoping above there in the Stewart Fraction?

A. Proceeding from the stopes above the Gray drift on what is known as the Gray ore body, through the raise and the stopes to the 300 foot level of the Stewart mine; thence eastward along the drift to the bottom of raise No. 314 west; thence on the vein and on ore up to the stopes on the Stewart vein above the 300 foot level of the Stewart mine. These stopes are continuous to the apex of the vein to the eastward and northward; the stopes are [133—88]

(Testimony of William Clancy.)

continuous from that raise.

Q. Now, is there any other connection on ore between the May and the Gray and the Frank ore bodies that are designated?

A. Proceeding from the stopes above the Frank ore body, which is on the same stopes as the Gray and May ore bodies, upward to the 300 foot level of the Stewart mine; thence eastward along the vein to the bottom of raise No. 314 west, upward in the stopes above the 300 foot level of the Stewart mine; thence upward through the stopes above the 200 foot level and on through the 100 foot level on continuous mineable ore through the stopes above the 104 intermediate level into the 104 intermediate level; thence along these stopes westward up into the old lower Stewart tunnel level and along the old Stewart tunnel level westward to the top of raise No. 223 west; downward along mineable ore into the stopes above the 200 foot level of the Stewart mine; thence downward through raise 328 west on mineable ore into the stopes again of the 300 foot level, and thence southwestward on the 300 foot level on up to the stopes of the Frank ore body, which is on commercial ore down to the Frank drift. That is one [134—89] connection between the ore bodies. Another connection is—

Q. Now, you have finished one connection, have you? A. Yes.

Q. Please state any other connection you have between those ore bodies on the veins.

A. Up from the Gray ore body upward through the

(Testimony of William Clancy.)

stopes of the 300 foot level of the Stewart mine; westward along the drift on the 300 foot level to raise No. 314 west; up raise 314 west to the 200 foot level; thence along the vein westward on the level to the stopes which are shown above the 200 foot level; thence through these stopes westward down to the 200 foot level, and down raise 328 west to the stopes above the 300 foot level, thence southward along the 300 foot level into the stopes above the Frank ore body and down to the stopes to the Frank drift.

Q. In tracing that connection, have you at any place departed from the vein? A. No, sir.

Q. Do you notice a separation on Exhibit 2 between the space in the Ontario designated by you as the May and Gray ore bodies and the Frank ore body; what is the distance [135—90] of that separation?

A. Between the May and the Frank it is approximately 100 feet.

Q. What is there in that portion of the territory, if anything, that accounts for the separation?

A. There is a fault which displaces the ore body and accounts for that separation.

Q. What is the throw of that fault or the measure of its displacement at that point?

A. Approximately 100 feet.

Q. Now, can you correlate or identify that fault with that displacement, with the same fault at any other portion higher up in the vein, and if so, where?

A. We have found a fault which correlates with the fault which has been found upon the Silver King

(Testimony of William Clancy.)

tunnel level of the Ontario Mine, on the 300 foot level of the Stewart mine near survey point 2113.

Mr. GRAY.—Just mark that so that we can see it, will you, please?

A. Yes, sir. On Plaintiff's Exhibit No. 2 near the figure "3" in 300 of the title "300 Level." That fault extends upward to the 200 foot level of the Stewart mine [136—91] near survey point 2076.

Q. What is the extent of its displacement there?

A. At this time the displacement is approximately 30 feet in the same direction as found in the Ontario mine. Thence from this place upward in the stopes we have found the fault continuous as the stopes are driven out to it, and on the fourth floor or approximately 30 feet above the 200 foot level of the Stewart mine the fault showed no displacement, no breaking or severing of the vein.

Q. Could you locate where its position was at that point so as to identify with the fault that you have already referred to in the lower workings?

A. Yes, sir; there is a fault in the stope, and it is no doubt the same fault; it correlated in position.

Q. Point out on Exhibit No. 2 the particular point in the workings of the Stewart mine where the effect of the fault as far as displacing the vein is no longer distinguished.

A. It is about 30 feet above the 200 foot level of the Stewart mine and the point is approximately 50 feet southwestward from the letter "R" in the word "Stewart" in the title "Senator Stewart Claim." The stopes which [137—92] are shown, over which

(Testimony of William Clancy.)

the letter "R" and "T" are printed are underneath this fault, and the stopes shown southwestward are over or above the fault.

Q. Please state to the Court whether or not you can go from the ore bodies in the Ontario mining claims that are in controversy here to the top or apex of the vein as you have designated it on Exhibit No. 1, on the vein, and show in how many ways you can go without getting off the vein, and as you describe the courses to which this question directs your attention, also call the attention to the proportions of the courses that are covered by commercial ore that was actually stoped and shipped in the ordinary working operations of the mine.

A. Beginning in the Gray ore bodies as shown by the red, bounded by black lines, above the Gray drift on Plaintiff's Exhibit No. 2, which is the same drift as is marked Gray drift on Plaintiff's Exhibit No. 1, this stope is commercial ore. Of course, going along the drift on the 300 foot level of the Stewart mine the vein was small, but continuous. Thence upward through raise 314 west for a distance which projects horizontally about 60 feet, the vein was small. The ore, I say—the vein was [138—93] small, but the commercial ore was small, about six inches to a foot of good galena, but that was not commercial in quantity. It was commercial in quality. Into the stopes which are shown upon this map—well, these stopes of course were commercial, so it has been stoped; thence eastward through the stopes above the 300 foot level of the Stewart mine to the

(Testimony of William Clancy.)

200 foot level, the white portion on the map has not been stoped, but is on the vein and in commercial ore. Up through the stopes as I am designating by my pointer to the 200 foot level, thence eastward to the apex. There are an infinite number of points from the 300 foot level up the edge of the stopes that you can go or could have gone at one time up the stopes all the way. Beginning from the Gray ore body, up the same route to the 300 foot level westward, and through the raise 314 that I spoke of; thence to the 200 foot level, thence to the 100 foot level and upward to the tunnel level through the stopes to the drifts marked "5 East" and "5 West" on Plaintiff's Exhibit 1, to the stopes above these drifts which are marked "Drifts No. 5 East and No. 5 West" on Plaintiff's Exhibit 1, and there we meet the fold in the vein which I have before described; downward [139—94] through the raise which is on the vein, but the ore is not commercial; that raise is marked No. 3 East on Plaintiff's Exhibit No. 1; thence in the Stewart tunnel level and along ore for a short distance which is not profitable to mine; there is some ore in that crosscut which is marked "East No. 3 Crosscut," which is commercial, but I cannot designate just the exact proportion that is or is not—and into the wide blue space which is designated. The entire space was occupied by commercial ore at one time, which has since been removed. Thence upward through the stopes to the top of the stopes above drift No. 4 east and on the vein, the footwall of the vein in raise No. 4 east to the point 10 feet

(Testimony of William Clancy.)

below the surface where the apex of the vein is found. Then from the Frank ore body beneath the Frank drift of the Ontario mine, upward through the stopes to the 300 foot level of the Stewart mine; thence along mineable ore to the stopes above the 300 foot level of the Stewart mine; thence through the drift on the 300 foot level—

Q. Please designate that drift.

A. That drift is described on Plaintiff's Exhibit No. 1 as drift No. 305 west, and the particular portion through [140—95] which I am passing through the Frank ore body to the stopes above the 300 foot level is between survey points 2120 and 2111. From the stopes above the 300 foot level through raise No. 328 west upward to the 200 foot level near survey point 2097 on Plaintiff's Exhibit 1; thence upward through the stopes above the 200 foot level through raise 223 to the Stewart tunnel; thence along the tunnel or through the stopes eastward to the Apex drift. There are an infinite number of points from the south side line of the Senator Stewart Fraction to the Apex drift that you can find on your upward course.

Q. Why do you call the line that you have identified the top of apex of the vein?

A. At any point along the apex as we have designated it we cannot go upward on the vein on its true dip; downward we can go on the vein, but not upward. That fixes it as the top.

Q. Please describe to the Court the workings in the Ontario shown on Exhibit 1, and Exhibit 2, and state how the ore bodies are opened in the Ontario,

(Testimony of William Clancy.)

by whom they were opened, and when.

A. The drift crosscuts and tunnels as found on the [141—96] Silver King tunnel level of the Ontario mine are shown on Plaintiff's Exhibit No. 1, marked Silver King tunnels, Gray drifts, May drift, Frank drift, Gray raise, Frank No. 1 raise, Frank No. 2 raise, and Ontario shaft, and the level which is shown in red, but which is not marked, which is approximately 100 feet lower than the level on which the Gray drift appears, are the workings of the Ontario mine. The Silver King tunnel was driven to a point approximately 20 feet beyond where the 200 foot level of the Stewart mine is shown as crossing it above, before I came to the Stewart mine, in the latter part of 1911, by the Ontario Mining Company—I presume it was the Ontario Mining Company; they ran a crosscut or an extension of the Silver King tunnel in a southeasterly direction, which I am following with my pointer, for a distance of approximately 450 feet, and encountered the vein at the point in this crosscut where the Gray is shown as intersecting the crosscut just described. The vein was followed for a distance of approximately 300 feet. Then a crosscut northwestward encountered the ore body on which the May drift was driven in about 20 feet. Thence the crosscut northwestward from the May approximately 100 feet to the Frank drift. I [142—97] don't know just when the workings were done, but some time since the latter part of 1911. This work was prosecuted continuously.

Q. When was the Stewart vein cut by the workings

(Testimony of William Clancy.)

in the Ontario with reference to the time that the stoping from the Stewart vein was done in the Senator Stewart Fraction?

A. The stoping in the Senator Stewart Fraction has continued for about two years, and the work was done in the Ontario since the latter part of 1911, that is, since probably December, 1911; I think it was either November or December, 1911, when they were working in the Gray drift; the latter part of 1911 at least, and this stoping has been continuous, and they are still stoping in the Senator Stewart Fraction above the 300 foot level.

Q. What is the character of the mineralization or the ore that is found in the ore bodies in the Ontario Mining Claim which you have identified?

A. The character of the Ontario ore bodies is identical with that of the Stewart ore bodies. The vein, where it is commercial ore, is composed of galena, carrying lead and silver.

Q. What is the character of the ore in what is known [143—98] as the Frank ore bodies?

A. It is the same.

Q. Is there any difference that you ever found in any of the structural features of the veins that you have examined in the Ontario mine and the vein that you have been working on in the Senator Stewart Fraction?

A. There is no difference whatever between the veins; they are the same vein; it is the same vein, there is no question.

Q. What is the country rock surrounding the vein

(Testimony of William Clancy.)

as disclosed in the Ontario claim? A. Quartzite.

Q. Referring to your Exhibit No. 2, Mr. Clancy, there are ore bodies shown to have been stoped west of the end line projected of the Senator Stewart Fraction. From what level was that stoping done?

A. From the 400 foot level or Fir tunnel level, marked on Plaintiff's Exhibit No. 1 as the 400 foot level.

Q. And in what claim is that stoping that is shown on Exhibit No. 2, within the boundaries of what mining claim?

A. The stoping to which I presume you refer is within the Lazy Jean and the Switchback claims. [144—99]

Q. Now, in the Ontario at the northerly portion, right back of the stope on what is known as the Frank ore body, there are some stopes there along to the west, immediately to the west or northwest of the Ontario mine. Who did that stoping?

A. The Stewart Mining Company did the stoping which I designate with my pointer, which is near the northeast corner of the Silver Casket claim shown on Plaintiff's Exhibit No. 2.

Q. How was the connection made and by whom was it made between the vein in the Ontario and the vein in the Senator Stewart?

A. The Stewart Mining Company drove southward from survey point No. 2113 on the vein.

Q. On what level?

A. On the 300 foot level in mineable ore, and proceeded to stope above it. Afterwards the Ontario

(Testimony of William Clancy.)

Mining Company stoped upward on the vein and holed into the 300 foot level of the Stewart mine.

Q. I call your attention, Mr. Clancy, in the midst of the red space which you have identified here as the representation of the stopes as they have been made from [145—100] time to time within the workings of the Stewart mine, and particularly I call your attention to a white space immediately south of raise No. 312 east as designated on Exhibit 1, which is shown but not designated by any figures or letters on Exhibit 2. Please state what that white space contains.

A. It contains ore; the section of ground was mined, as shown in red, designated by my pointer, approximately between survey points 2008 on the 300 foot level of the Stewart mine and survey point 2028, point 2028 being about the eastern extremity of the section as mined. The faces of those stopes are still in ore; the portion which I designate now is not profitable and they left a little pillar, but the eastward and westward from this raise is mineable ore which will be mined. The stopes are now being prosecuted from the 400 foot level upward right in this section of ground.

Q. What is that white space between the raise along the east end line of the Stewart Fraction and to the north of the raise which I last called attention to, what is in that?

A. The larger portion of that space will be mined; that is, draw a line from the easternmost extension of the 200 [146—101] foot level down to the east-

(Testimony of William Clancy.)

ernmost extension of the stopes above the 300 foot level will be the portion which will probably be mined. At that point we find the upper termination of the vein, and it will be quartzite above that.

Q. What did you have in the white space that you showed here immediately above the stopes and to the south of the 100 foot level on the eastern portion of the Senator Stewart Fraction and almost directly beneath the breast of that drift southeast from the Stewart tunnel level?

A. For about 40 feet south of survey point 9940 in drift No. 105 east is shown a white space on Plaintiff's Exhibit No. 2. In that space is the Stewart vein, but a portion of it was unprofitable. The vein was there, but it did not pay to remove it.

Q. And in the white space that is shown immediately above the southerly side line of the Senator Stewart Fraction and bounded on the north by the bottom of the other stopes, through which raise 400C I believe passes, what is that?

A. For a space of 60 feet south of survey point 2015 on the 200 foot level on Exhibit 1 is shown a white space [147—102] on Exhibit 2. In this space is the Stewart vein on which stoping is now being prosecuted.

Q. You mean now, at the present time?

A. At the present time; the stoping is being extended right now, to meet the section to the eastward, which has been mined.

Q. What level is being now used as the working level to stope into that *that* vein?

(Testimony of William Clancy.)

A. We are mining the ore from the 300 foot level and transferring it to the 400, and thence it is taken out by a train out through the tunnel.

Q. What is there in the space that is still left in white along the westerly line of the Lazy Jean and above the 200 foot level and south of the easterly portion of the southern side line of the Senator Stewart Fraction?

A. From a distance of approximately 160 feet south of the northeast corner of the Senator Stewart claim, along the east end line of the Senator Stewart claim, is shown a white space on Exhibit No. 2. Most of this space is known to be mineable ore, which will eventually be taken out. The ore was left there, because if the ore is mined, it is impossible to hold the drifts and it is to permit the other portions which still remain to be stoped.

Q. Now, as you go on further to the south and below that [148—103] point, you come to another white space which is bounded on one side by the 100 foot level marked on Exhibit 2, the 200 foot level, and between those two levels it is represented in white; what is there?

A. In the eastern face of the stopes which are shown above the 200 foot level of the Stewart mine on Exhibit 2, in which the letters "R" and "T" of the word "Stewart" in the title, Senator Stewart, appear, the vein is of unprofitable quantity. There is some galena in the vein, probably six inches; it is not profitable to remove it, and in the stopes from the 200 foot level as shown to the eastward of this, the

(Testimony of William Clancy.)

face is also unprofitable, so for that reason there has been no stoping done in that space.

Q. Is that on account of the smallness of the seam or a lack of quality of the ore?

A. No, the quality remains the same, but the quantity of galena is insufficient. The vein is small. It can now be seen in the easternmost face of the stope I have just described. The vein is there and can be seen, but it is small.

Q. How does it show on this portion of the 100 foot level; when that was driven was the vein there?
[149—104]

A. The vein is there, but it is lean.

Q. How is it on the 200?

A. It shows there, at the portion where it crosses the Silver King tunnel, there is galena shown at the top of raise No. 314 west, where it intersects the 200 foot level. All along that portion it is shown as white above the 200 foot level, it is lean.

Q. Immediately below the line of the Silver King tunnel on Exhibit 2 there is a small white space adjoining your red stopes; what is in that?

A. The same condition as I have described obtains from the southwestern face of the stope below the 100 foot level and below the letter "L" in "Lever" on the west end of the 100 foot level; the stopes where the letters "RT" of the word "Stewart" of the title Senator Stewart are seen.

Q. Is there a lean place in the vein there; is that what you designated?

A. Yes, we found it lean in the drifts and lean in

(Testimony of William Clancy.)

the face of the stopes and therefore it has not been removed.

Q. Going on further to the south we find the white space in the stoping that is shown south of the Silver King tunnel in the Senator Stewart claim. What is the condition [150—105] there? I believe you already described that; that is where the fault is.

A. That is where the fault, which is shown in the Ontario mine, separates the ore bodies on the 200 foot level. There is no vein to be mined in the space shown as white.

Q. So that that faulting in that space, this irregular shaped space between the 300 foot level and the 200 foot level in the southeastern portion of the Senator Stewart, what have you to say about that?

A. A portion of that ground in all probability will be mined; a part of it will not be mined, as we will have a width of something over 100 feet between the stopes on the Gray ore body and the stopes on the Frank ore body on the Ontario level, and that width will gradually decrease until, as shown above the 200 foot level and on the 200 foot level it is only a width of something over 40 feet. That is a V-shaped white space which will appear on this map if the stoping were all complete.

Q. How about this space in the Ontario mine here between the May and the Gray stopes and the north-western end line of the Ontario? [151—106] .

A. A part of that will probably be stoped, and part of it will not. A portion of that ground falls within the V-shaped space which I have already described.

(Testimony of William Clancy.)

Q. How about the white space in here immediately south of your Apex drift in the Senator Stewart Fraction claim and towards the center of the claim, where the white appears; what is the condition as to that?

A. There is ore, which in my opinion will be mined westward from the crosscut which is designated on Exhibit 1 as east No. 3 Crosscut, and opposite the raise which is marked our No. 3 raise. Of course the exact extent of the commercial ore is impossible to know until the work is done, but there is ore to be seen there, and no doubt it will be extracted. The vein is found and commercial ore is in sight.

Q. Now, Mr. Clancy, what do these black lines represent which seem to bound portions of the red, running right through the stopes as designated on Exhibit 2?

A. The black lines which are shown on Exhibit 2 are the boundaries of the actual openings in the stopes on the hanging-wall side. I do not mean to say that that is the hanging-wall of the vein, but that is the boundary of the [152—107] stope on the hanging-wall side; that is, the vein is dipping in a southeasterly direction, and looking down upon it, the lines are just like a terrace wall, and you can see the hanging-wall side and you cannot see the footwall side, and these lines represent the hanging-wall side of the floor of the stope.

Q. And that is the form in which that was actually stoped and taken out in the ordinary development of your property and the mining of its ores, was it?

(Testimony of William Clancy.)

A. It was; it is all just like a flight of stairs, the steps one after another, up on the vein. [153—108]

Q. Mr. Clancy, I call your attention to an exhibit upon which is written "surface map, Stewart Mine, Stewart Mining Company, Kellogg, Idaho; scale, one inch, thirty feet," which the stenographer has identified as Plaintiff's Exhibit No. 3, and ask you if you are familiar with that exhibit? A. I am.

Q. Under whose direction was it prepared?

A. It was prepared under my direction.

Q. From what data did you prepare it?

A. From notes and surveys taken in the stopes and levels of the Stewart mine.

Q. Did you make these surveys from your own observation, or have some assistant with you when that was done?

A. I had my assistant with me in making surveys.

Q. Who made the notes of the original surveys from which the data was taken?

A. Are you speaking of the entire map?

Q. Yes, I am speaking now of all the data that was used for the purpose of putting these different objects upon the map.

A. I have surveyed the entire surface, obtaining the [154—109] location and elevation of a great many points covering the entire surface which is shown upon this map. My assistant afterwards obtained a great many more elevations from which the contours were located.

Q. Was that done under your direction and the supervision of your department?

(Testimony of William Clancy.)

A. It was; and I had an absolute sketch of his work by checking on my points which I had surveyed myself, so I know from that that the map is correct.

Q. Now, please state whether or not then you are able to state from your own observation and surveys and from such assistance as was reported to you and checked in connection with it, whether or not that Exhibit 3 correctly represents the different objects which are noted upon it? A. It does.

Q. What are the lines irregular in course beginning at the northern portion of the map and extending down in length and coming around the different curves that I indicate on this exhibit?

A. The curves shown in brown and numbered from 2950, 2975 and so on from 25 up to 3650 are contour lines. Each line represents the line which the water level would take [155—110] if the whole country were filled with water up to that elevation; that is, each line shows—all points upon each line are the same elevation.

Q. That is, if I identify a line here as it crosses the east end line of the Senator Stewart Fraction with the same line as it crosses the southerly side line, I know that the point of intersection of those boundaries are the same elevation, is that correct?

A. Yes, sir, that is correct.

Q. Does that apply to the contours beneath the Ontario and the Senator Stewart, the Lazy Jean and Switchback?

A. Yes, sir, it applies to the entire map, all the contour lines shown upon it.

(Testimony of William Clancy.)

Q. I find designated upon this exhibit a red line crossing the easterly end line of the Senator Stewart Fraction and going along in a northwesterly course and then curving until it finally takes a southwesterly course and down to the southerly side line of the Senator Stewart Fraction. Please state what that line designates.

A. It represents the apex or succession of the points as we have developed them along the top of the vein in the Senator Stewart Fraction. [156—111]

Q. How did you get the line from one point to another, for instance, you would take the point where you actually had the top shown in the upraise ten feet from the surface and the other points where you had the top exposed lying against the face of the Osborne fault, how did you get the line between so as to make the different points, not all of the points of apex having been shown by actual development?

A. Referring to Plaintiff's Exhibit 1, we have the apex shown on the south side line of the Senator Stewart Fraction at the top of raise marked raise No. 2. We also have the apex shown in the west end, the drift marked Apex drift near survey point 2532; we also have the apex shown near the top of raise on Exhibit 1, marked raise 4 E.; we also have a point—determined a point on the apex, on the Apex drift, where the Osborne fault is shown on the north side of the Apex drift. On the old lower Stewart tunnel the top of raise 218 east near survey point 2518 we have another point on the apex following down raise 218 east to the 100 foot level; we have a point on the

(Testimony of William Clancy.)

apex at the 100 foot level, also in the 200 foot level, thence going down from the 200 foot level down raise 314 east to the point where we find the top of the vein in raise 314 east. We find another [157—112] point in the apex; we go down raise 314 east into the vein, thence eastward along the 300 level to a point a short ways east of survey point 2528 and find another point in the apex. That in connection with our stopes as showing the position of the vein enabled us to connect up the apex as shown upon Plaintiff's Exhibit 3.

Q. Please state to the Court whether or not the apex line as shown on Plaintiff's Exhibit 3 correctly represents the location of that apex within the lines of the Senator Stewart Fraction. A. It does.

Mr. DINES.—We offer Exhibit 3 in evidence, your Honor.

The COURT.—It will be accepted.

The said map was thereupon marked Plaintiff's Exhibit No. 3 admitted.

Mr. DINES.—Q. How far are the walls of the vein as they are disclosed in the vein of the Apex drift beneath the surface of the ground?

A. In the Apex drift?

Q. Yes, sir.

A. They are at varying heights, from the footwall of the vein as exposed in the Apex drift near point 2117, [158—113] approximately 25 feet below the surface, but the hill going upward at that point, the Apex drift increases in depth below the surface, so the height varies.

(Testimony of William Clancy.)

Q. I will ask you if you can from your contours that you have given here now accurately determine from the elevations the difference in elevations from your points along the line of this apex and the difference in elevation of the point at which the line of that apex crosses the east end line of the Senator Stewart Fraction claim.

A. That is no data on this map that I can do that.

Q. I would like to have you, Mr. Clancy, take the elevation of the exact point that your apex crosses the easterly end line of the Senator Stewart Fraction mining claim and the apex at the highest point that it has been developed up here at the point of this curve and mark it on Exhibit 1 so that the Court and all of us can know that elevation.

A. Mark the elevation of the apex that crosses the east end line?

Mr. DINES.—I find, your Honor, that the elevations of these points have not been put on this map, and I wish to have them put on, and I suppose the gentlemen on the other [159—114] side will not object to those elevations being shown.

Mr. GRAY.—You can put anything on you want to.

A. Shall I mark the elevations on Exhibit 1?

Mr. DINES.—Q. Get those elevations and mark them on the map.

The COURT.—Yes; you can mark them right on the map.

Mr. DINES.—Q. If you have not the data for this, you can get it and put it on later.

(Testimony of William Clancy.)

A. (Witness marked map.) I have got them near enough for all practical purposes; it is very close.

Q. I would like to have it accurate.

A. How nearly do you want them?

Q. Have you got any data from which you can get it accurately?

A. I do not know what you mean—accurately. That is accurately.

Q. How close? A. It is within five feet.

Q. I think that is reasonably accurate myself. What are the elevations that you have put on there?

A. The elevation of the apex as disclosed in raise 4 east, elevation of 3025. The elevation of the apex as it [160—115] crosses the east end line of the Senator Stewart Fraction, elevation 2672.

Q. Do you know what angle the Stewart vein upon which the mining operations of the Stewart Mining Company have been carried on in the Senator Stewart Fraction claim makes with the Osborne fault on its strike?

A. The angle which the Stewart vein makes with the Osborne fault on its strike as developed in the mine for a distance of 120 feet away from the fault is from twenty to thirty degrees, about twenty-five degrees. Now, that angle is constantly varying. The further away from the fault you get the *large* the angle. As you approach the fault, for instance, on the 100 level, there is mineable ore a distance of 100 feet right on the same strike as the fault.

Q. What is the angle of declination of your apex

(Testimony of William Clancy.)

as it comes from near the center of the Senator Stewart Fraction and crosses the easterly side line of that claim?

A. That angle is approximately thirty degrees. Do you wish me to figure it from the elevations which I have there?

Q. Yes, sir, if you can get it, I would like to have it as accurately as you can get it. If you are not prepared [161—116] to make that now, you can bring it in to-morrow morning.

A. I will figure it and mark it on Exhibit No. 3.

Q. Yes, sir, I will ask you to do that.

Mr. DINES.—Your Honor, we have some cross-sections that will have to be identified by this witness. He has done the work and had them made, but they are not quite ready. The exhibits which represent them are not quite ready, and we will ask to reserve the right when they are ready to-morrow morning to identify them by him, and then with the corrections put on Exhibit 2 and the additional matter on Exhibit 1 reserved, we offer the witness to the other side.

Cross-examination.

(By Mr. GRAY.)

Q. Mr. Clancy, you have spoken of the Osborne fault. By that term what do you mean?

A. By the term Osborne fault as applied to the workings which I have described I mean the fault against the south face on which the Stewart vein terminates on its upward course. It was called Osborne fault because that is the name which the fault

(Testimony of William Clancy.)

which occupies the location which corresponds [162—117] to this fault is known in this district.

Q. A well-known and generally recognized fault, the throw of which is very great?

A. This fault has a very great throw, and the Osborne fault is well known.

Q. It is a normal fault, isn't it?

A. It is from all I know and have heard about it.

Q. Yes. In other words, the hanging-wall has dropped down, the rock on the hanging-wall side of the fault has dropped down?

A. Either the hanging-wall has dropped down or the footwall has gone up; the relative movement is the same.

Q. What you call the apex of this vein, the northerly apex, is in fact a termination of the Stewart vein against the Osborne fault?

A. It is the termination of the Stewart vein in its upward course against the south face of the Osborne fault.

Q. Now, if you will just answer my questions without adding anything to them, we will get along faster. It is, whether on its upward or onward or other course, it is the termination of the vein against the Osborne fault, is it not? [163—118]

A. It is the termination of the vein against the Osborne fault as I described it.

Q. The vein is older than the fault, in your judgment?

A. I don't know whether the fault was cut off by the vein or whether the fissure was made and the

(Testimony of William Clancy.)

vein was filled afterwards or much about that part of it; I know the actual conditions as they exist in the ground.

Q. Yes, sir; it is your opinion, isn't it, that the vein was faulted by this Osborne fault, isn't it?

A. It probably was. That seems to be the opinion of men who are posted on matters of that kind better than I am.

Q. I am willing to take your judgment, Mr. Clancy. A. I will take their judgment.

Q. And in all probability before that fault the vein extended indefinitely or out some distance in a northerly direction from the present termination of it against that fault in your judgment.

A. Assuming that your hypothesis is correct, the fault had a large displacement of several thousand feet, the vein was not in that section of the country before the faulting.

Q. I do not want you to assume my hypothesis; take [164—119] your own; what is your judgment, and answer the question upon your own judgment.

A. You asked if the vein extended northerly—

Q. In the Burke quartzite—this is in the Burke quartzite, isn't it considered so? A. Yes, sir.

Q. In the Burke quartzite, in the beds that lie opposite the present beds which enclose this vein, in your judgment within that rock that vein extends in a direction beyond its present termination against the Osborne fault, isn't that true? A. No.

(Testimony of William Clancy.)

Q. You think that the—well, go on and explain that answer.

A. Presuming that this vein existed in the position which it now occupies and extended onwards beyond the Osborne fault, which is not true.

Q. Beyond the point where the Osborne fault now is, you think that that has always been the termination of the vein along that line, do you?

A. On the presumption that the Osborne fault—

Q. No, answer that question yes or no, and then you [165—120] may explain.

A. (Continuing) —the vein did not occupy the position in this country at all, it was further to the east, this part that did the moving, if the hanging-wall came down in the Osborne fault.

Q. Yes, sir; now, then, do you think that there was any portion of the vein which lay beyond the line of the Osborne fault?

A. I don't know; there is no way to tell anything about it.

Q. There is no way to tell anything about it; well, what is your judgment?

A. My judgment is that before the Osborne fault occurred in the country, which the facts are, in the vague past nobody knows anything about it; you are simply theorizing when you are talking about it in the first place.

Q. Yes, sir.

A. The Osborne fault dropped the northern part of this country which is shown by the workings of the Stewart mine and terminated against the Osborne

(Testimony of William Clancy.)

fault and it slid down opposite the Pritchard formation, that is, at one time the movement was southwestward, that is, at one time this [166—121] whole country lay further to the east. As to the lateral movement, I never heard it discussed, don't know anything about it myself, I don't know whether anybody else does or not, there may have been a lateral movement and there may not have been, but if such a condition did exist here, the present condition was not to be found, and there never was any extension of it even on that hypothesis, and the vein went through the fault in its present position.

Q. Mr. Clancy, you have given as the western apex of the vein the termination of the vein against another fault? A. Yes, sir.

Q. Have you attempted to determine in any manner the throw of that fault? A. Yes, sir.

Q. Where? What investigation have you made of that question?

A. The place upon the map, Plaintiff's Exhibit 1, marked No. 7 raise, which extends to the top of the stope above the old lower Stewart tunnel in its western portion, in the neighborhood of where the word "Senator Stewart" appears on Plaintiff's Exhibit 1, I find the vein was terminated on its upward course by this fault which you have [167—122] spoken of. We run a crosscut into the footwall, marked upon Plaintiff's Exhibit 1 as No. 7 cut. That crosscut was extended for a distance of approximately 150 feet into the footwall without finding anything but the broken country and no trace of a vein. On the

(Testimony of William Clancy.)

opposite side the crosscut had been driven from the workings, from the upper Stewart tunnel, showing also a broken or faulted condition which gave a wide area of broken up country, and we could not make any connection between—find no continuation of the vein beyond that fault.

Q. Were those on the same level, the number 7 and the 85 level?

A. The No. 7 is about forty feet above the 85, but it would have connected with a vertical raise which is in the end of the 85 level.

Q. The Stewart property has been worked as a whole, that is, the Senator Stewart Fraction and the Senator Stewart claims have been worked as one mine. A. It has.

Q. And the first work there was from the upper Stewart tunnel which you have shown upon your map; that is the first work there from which any actual mining operations [168—123] were conducted, is that true, or do you know?

A. I don't know from my own experience, but I presume it was. That working was driven before I arrived at the Stewart.

Q. And ore was extracted through that tunnel from over here in the Senator Stewart claim (indicating)? A. There are some stopes shown above.

Q. Where are they over here on this map?

A. They are not shown upon this map.

Q. Why didn't you put them upon that map?

A. Because I have no record of it; you can simply

(Testimony of William Clancy.)

see the openings, and you have no way to get into them.

Q. Was there not any stope map kept at that time which was handed to you by your predecessor?

A. No, sir, I have no record whatever of any stoping of that working; I presume from what I know of the workings that that stoping was probably done before the present management of the Stewart Mining Company took control of it.

Q. And you have no maps showing that?

A. We have workings there which are called the Samuels raise, and I presume all that work was done by Mr. [169—124] Samuels when he owned the property.

Q. There is no map showing that stoping?

A. Showing the stoping, no, there is not.

Q. The work over here on the Senator Stewart Fraction which you have there as the thirty-five level, that was done by the Stewart company?

A. That was done previous to my arrival at the Stewart mine, but the works to some extent are still accessible.

Q. These works are not accessible over here?

A. These works are accessible as shown there, but the stopes are not. The full extent of the stopes are not shown.

Q. The property when you first went to work there was being opened up and developed through the Stewart tunnel, the main working tunnel there, and drifts on that level and the shaft sunk from that level, isn't that correct? A. That is true.

(Testimony of William Clancy.)

Q. The Stewart tunnel appears to penetrate the vein in two places, one way by the Deering crosscut and another around to the south of the Deering crosscut, is that correct? A. Yes.

Q. Where was that vein first opened up by the miners [170—125] in the development of the property on that level?

A. I don't know; it was done before I arrived at the Stewart mine.

Q. You don't know whether the Deering crosscut was driven before or after the vein had been opened up upon that level?

A. No, not to my knowledge, I don't know anything about the way the work was done there; that was all done before I arrived here, or arrived at the Stewart mine.

Q. Did they keep progress maps which show?

A. As I stated before, I have no record—when I came to the Stewart mine we had a plan map showing the extent of the workings. As to the sequence in which they were driven I have no record.

Q. The Deering crosscut had been driven when you arrived? A. Yes, sir.

Q. From the work which has been done up there on that eighty-five level in the No. 6 crosscut, is it, that you refer to?

A. No. 7 cut as it is marked upon Plaintiff's Exhibit 1.

Q. Yes, sir. What is the throw at that point?

A. I don't know. [171—126]

Q. No way of determining?

(Testimony of William Clancy.)

A. We have been unable to find the vein above the fault which cuts off the vein above the old lower Stewart tunnel level.

Q. You find it up in here in these workings, don't you?

A. I don't know but that is the same vein or not.

Q. You know there is a vein there? A. We do.

Q. Yes, sir; and you know there is one down here?

A. We do.

Q. The drift on the Stewart tunnel level at the time you went there had been extended how far to the south?

A. In a westerly direction to its present face, only a short distance of the south side line of the Senator Stewart claim.

Q. What is the top of this map?

A. What is the top of it?

Q. Yes, sir—north?

A. You mean the direction? Yes, sir, north.

Q. Why do you mark this as the west drift when north is up here and west over there.

A. North is up here and west is over there; where would [172—127] you mark it north?

Q. Where is west?

A. There is north and there is east and west and there is south.

Q. You have this marked west from the shaft?

A. Most of the workings—

Q. Just answer this question, with reference to the Stewart tunnel level.

A. Because we use an arbitrary name to give

(Testimony of William Clancy.)

those drifts a number so that we would know them.

Q. Yes, sir, all right. How far in a northerly direction had that drift extended at that time, that level, at the time you first went there?

A. The particular drift which you were describing?

Q. Yes, sir.

A. To the intersection of the Deering crosscut and the Stewart vein marked on Plaintiff's Exhibit 1 as survey point 9962.

Q. And continuously from that point to its southern face it was within the vein, followed the vein?

A. I have reason to believe that it followed the vein from raises that go up and the stopes on which I followed [173—128] it continuously through on the vein, and from the points which I have seen the vein in this drift.

Q. And ore was stoped above that level as far as there was commercial ore? A. Yes.

Q. Yes, sir. Now, then, what is the elevation of the point which you have marked there—what is that number—9962; what is the elevation at that point?

A. Something over twenty-nine hundred.

Q. Give it to me accurately.

A. It is not upon that map, but it is approximately 2912.

Q. Haven't you some data?

A. Not upon these maps. I can get you that, though.

Q. I wish you would.

(Testimony of William Clancy.)

A. No, I have nothing here.

Q. What was the elevation of the southern face of that?

A. Approximately the same elevation as point 9962.

Mr. DINES.—Mr. Gray, we will have the elevations put on that map this evening so that you can take up that branch of it in the morning. It was an oversight.

Mr. GRAY.—All right. [174—129]

Q. Had the 104 intermediate drift been driven at that time?

A. Only the crosscut which is shown from raise marked R. 100C upon Plaintiff's Exhibit 1 to point 9566.

Q. The level had been run?

A. The drifts from this crosscut had not been run at that time.

Q. Now, then, how far down was the shaft at that time, Mr. Clancy?

A. Down to the 200 foot level, and a short sump below that.

Q. Had the 100 foot level been run at that time?

A. The crosscut south from shaft marked upon Plaintiff's Exhibit 1 as shaft No. 1 was driven south and crosscut north from shaft and drift east and west marked drift 105 east and west was driven.

Q. Had the level been extended from the crosscut?

A. Drift 105 east has been extended since my arrival there.

(Testimony of William Clancy.)

Q. And the 200 has practically all been done since your arrival there?

A. No, part of the 200 was driven before my arrival [175—130] there, and part of that has been extended some since.

Q. Practically all the mining, though, has been done since your arrival there?

A. Yes, sir, practically all the mining.

Q. And practically all the mining on the one hundred?

A. Well, I would say about half the mining on the one hundred.

Q. You have said that the point 9962 and the south face of that Stewart tunnel level were approximately at the same elevation. What is the general course of that drift between those two points?

A. North thirty degrees east.

Q. And the distance between those points is how much; what is the distance between those two points?

A. About eight hundred feet.

Q. The vein upon that level was extended on northerly from that point, was it not?

A. You are speaking of northerly from point 9962?

Q. Yes, sir.

A. The vein was extended in the direction of north seventy east, which is more nearly east than northerly, for a distance of approximately sixty-five feet, marked drift 4 [176—131] east upon Plaintiff's Exhibit 1 from the point 9962.

Q. What was the point farthest north there at which you have seen the vein?

(Testimony of William Clancy.)

A. On the tunnel level?

Q. Yes, sir. A. Near survey point 2090.

Q. Is that the point you just spoke of a minute ago?

A. I spoke of the drift being extended along the vein north seventy east from survey point 9962 to survey point 2090, that is, the drift along the vein?

Q. How far is that?

A. That is a distance of about ninety feet. I must have had the wrong scale on it if I gave you sixty-five.

Q. There is some slight turn to the course of the vein from the Deering crosscut to that point—course of it? A. There is a gradual turn in the vein.

Q. Read the question, and let him answer it.

(Question read.)

A. There is a turn in the course of the vein from the Deering crosscut to that point.

Q. What is the general course of that vein from that point to the southerly face of the tunnel level?
[177—132]

A. Approximately north thirty east, about north thirty-two or thirty-three east.

Q. Now, going to the map, Exhibit 2, the workings from that tunnel or in that level are disclosed in the stopes above it, crossing entirely practically the entire Senator Stewart Fraction and also clear over to within about twenty-five feet of the south line of the Senator Stewart claim itself, aren't they?

A. You are asking about the stopes above the entire Stewart tunnel level?

(Testimony of William Clancy.)

Q. Yes, sir.

A. The stopes above the old lower Stewart tunnel level are shown on Plaintiff's Exhibit 2 by the black lines marked in red above the old lower Stewart tunnel level and also above drifts 5 east and drift 5 west as marked upon Plaintiff's Exhibit 1.

Q. Now, read the question and let him answer it.
(Question read.)

A. The stopes as shown upon Plaintiff's Exhibit 2 are within one hundred ten feet of the north side line of the Senator Stewart Fraction and within twenty feet of the south side line of the Senator Stewart, continuous between [178—133] those limits.

Q. The two points. Now, then, those black lines you have explained to the Court represent the hanging-wall sides of the various stopes, and as you describe it they are like steps going upward to the top of the vein along its western termination, is that correct?

Mr. DINES.—I think you inadvertently put the word "steps" in the witness' mouth. I think he used it as the terraces, I think was his word.

Mr. GRAY.—I think you are mistaken, Mr. Dines.

Mr. DINES.—Am I?

Mr. GRAY.—Yes.

Mr. DINES.—I may be mistaken but I thought he said terraces, like the approaches of the terrace.

The COURT.—He used the word "steps" in connection with part of his testimony; I do not remember whether it was in connection with this part of this testimony.

(Testimony of William Clancy.)

Mr. GRAY.—Read the question. (Question read.)

A. The black lines represent the hanging-wall of the stopes as opened in the mine upwards from the old lower Stewart tunnel level to its termination upward just as they are located there. [179—134]

Q. In a westerly direction?

A. Part of them in a northwesterly direction and part of them in a northerly direction.

Q. You have spoken of having opened the vein up to the fault along this raise that you run—is not that a raise from the southerly end of the tunnel end?

A. That is a raise in the stopes.

Q. Does that raise run up on the vein?

A. It does.

Q. What is its inclination from the end of the—what is that, a crosscut, do you call it?

A. Yes, sir, that is a little crosscut.

Q. What is its inclination?

A. Forty-five degrees, an average.

Q. *Has* the vein *has an* inclination—what is the inclination of the vein upward from the Stewart tunnel level in its southerly portion here?

A. I think forty-five degrees is about an average in the southerly portion from the Stewart tunnel level upward.

Q. Yes, sir, to this fault that you say cuts it off?

A. Yes, the fault cuts it off, and the upward termination of the vein is against this fault. [180—135]

Q. From the Stewart tunnel level you have followed it downward to a connection with the 200 level, haven't you? A. Yes, sir.

(Testimony of William Clancy.)

Q. And is that within the vein?

A. That is on mineable ore.

Q. What is the downward inclination of the vein from the Senator Stewart tunnel level to the 200 foot level as disclosed by your workings there?

A. About thirty degrees, average. The vein varies in dip greatly.

Q. There are local variations in both the course and dip of the vein? A. Yes, sir.

Q. Now, then, after the driving tunnel crosscut drifts a shaft was commenced from which these other drifts have been driven in a northerly and southerly direction.

A. A shaft was sunk to the 200 level.

Q. I won't quarrel with you. In a northeasterly and southwesterly direction, if you prefer it. Now, you can answer it yes or no, can't you?

A. Northeasterly and southwesterly, yes, sir.

Q. The intermediate drift was really quite short, [181—136] isn't it, Mr. Clancy?

A. Yes, sir; approximately 200, probably 250 feet.

Q. On the vein?

A. On mineable ore crosscut it.

Q. Yes, sir; and the course of that drift, the course of the vein as disclosed by that drift is what?

A. North thirty east.

Mr. DINES.—What drift was that referred to?

Mr. GRAY.—The 104 intermediate.

Q. That is how far below the tunnel level vertically?

(Testimony of William Clancy.)

A. Approximately forty feet below the tunnel level.

Q. And on the incline?

A. That is a very peculiar level. On the incline at the point underneath the south side line of the Senator Stewart Fraction the vein was very steep and the incline is only probably forty-five or fifty feet, due to the local bend which occurs on the tunnel level, the dip is about forty-five degrees at the center, but on the southerly end of the 104 intermediate the dip is again very steep as noted by the short distance horizontally, it is between the 104 intermediate and the tunnel level. [182—137]

Q. The shaft goes down in the footwall of the vein, don't it?

A. I understand that the shaft was started on the vein, but soon went into the footwall, and at the 100 foot level and below it is in the footwall.

Q. Then what is the inclination of the shaft?

A. 45 degrees.

Q. And all of the crosscuts were driven out on these levels out to the vein?

A. From those levels the crosscuts were driven to the vein east and west.

Q. East and west—well, that is an arbitrary term when you say east and west, is it not?

A. I use the terms east and west merely arbitrarily, but the fact of the matter is that on the 100 foot level the course of the 100 is more nearly east than it is north.

Q. Now, on the 100 foot level you have developed

(Testimony of William Clancy.)

the vein between what points?

A. On strike, you mean?

Q. Yes.

A. On the 100 foot level we have the vein developed [183—138] from the crosscut from the shaft easterly to its termination, southerly on this particular level from these workings for a distance of something over 200 feet; then, at the elevation of the 100 foot level we have the vein developed in raise No. 223 west from the 200 foot level, but it is not connected with the work on the 100 foot level.

Q. When you say "Easterly to its termination," you mean its termination against the Osborn fault?

A. Its termination against the Osborn fault, yes.

Q. What is the distance between these points, from the point east where you have it developed in that raise, how far is that on that level?

A. About 450 feet.

Q. Between the point where it is developed by that raise on that level and the second point where you cut the vein with your crosscut from the shaft, what is the course of the vein?

A. Approximately north 45 degrees east from the portion where we have the vein developed up from the 100 foot level in the raises.

Q. Where do you take that from, from the raise there that connects the tunnel level? [184—139]

A. We have it in two raises, there and here, and I took it from the point there that I know where it is.

Q. Suppose you take it from the point where you know where it is in this section?

(Testimony of William Clancy.)

A. I would have to get a section of that raise. I know it is in the top of it.

Q. How far vertically below the tunnel level is the 100 foot level? A. About 80 feet.

Q. And on the incline?

A. About 114 feet. It bears a mathematical relation to the height.

Q. Mr. Folsom called my attention to the fact that you have been giving that course only in one direction. It would be south 45 west or north 45 east.

A. Mr. Folsom did not hear what I said. I said north 45 east and north 30 east.

Mr. FOLSOM.—I was speaking of the direction of the dip from the west edge.

Q. I don't know that you gave that, Mr. Clancy.

A. If I gave you the course of the vein at that point, I gave you the dip in degrees. The dip is at right [185—140] angles to the course.

Mr. FOLSOM.—I mean the dip of the shaft which you referred to a few minutes ago.

WITNESS.—The dip of the shaft is 45 degrees, and the direction of the shaft is downward, south 50 degrees east.

Q. On the 100 foot level, northeasterly from the shaft or from the crosscut from the shaft the vein was developed to what point?

A. The vein on the 100 foot level is developed from this level which runs south from the shaft for a distance of approximately 470 feet.

Q. Now, then, the next development was from a

(Testimony of William Clancy.)

crosscut from the shaft on the 200 foot level, is that correct?

A. The next lower working is the 200 foot level, which was developed by a crosscut south from the Stewart No. 1 shaft.

Q. That is deeper in the earth than the 100 foot level? A. Yes.

Q. And that level is approximately how long between its two faces?

A. Do you wish me to give the eastern and western extension, or the entire length? [186—141]

Q. The northeastern or the southwestern or the northern and southern or the eastern and western, which ever you have a mind to call it. On the vein, how far is that driven?

A. Approximately 1000 feet.

Q. And what is the general course of that drift between those faces upon the vein?

A. North 45 east.

Q. The vein in your judgment is shown in the two ends of that drift?

A. In the eastern end of the drift marked "Drift No. 205 East" on Plaintiff's Exhibit No. 1, the vein does not show.

Q. How near to the face is the vein shown?

A. Approximately 20 feet west of the face.

Q. Now, then, from the 100 foot level to the 200 foot level what is the inclination of the vein in a southeasterly direction or an easterly direction?

A. The inclination varies.

Q. Yes.

(Testimony of William Clancy.)

A. And at what particular point would you rather have me give it to you? [187—142]

Q. Oh, I don't want the local dip; I want the average dip.

A. 45 degrees from the tunnel level to the 100 foot level. Is that what you asked?

Q. That is all right. Now, from the 100 to the 200, is it above the same?

A. No, it is a rather hard matter to arrive at an average on a thing of that kind; at the western portion the dip is approximately 30 degrees and in the eastern portion between raise 216 on Plaintiff's Exhibit 1, and raise No. 211 east, the dip is approximately 50 degrees.

Q. That vein was stoped upward from the 200 foot level up to the 100 foot level and then above the 100 in the course of mining operations there, was it?

A. It was.

Q. Now, the next development was through the Fir tunnel, Mr. Clancy, that was run in here and is shown as your 400 foot level, or Fir tunnel; is that right?

A. No; we were only down to the 200 and the next development was at the 300.

Q. Was that developed from the shaft too?

A. No, sir, there was a winze sunk in the south end of [188—143] the crosscut marked 200 south crosscut on Plaintiff's Exhibit 1.

Q. And the 300 foot level was opened up from that winze?

A. Yes, sir, it was opened up from that winze.

(Testimony of William Clancy.)

Q. Now, that winze, what was its inclination downward?

A. 35 degrees for a short distance, but an average of 40 degrees.

Q. And that 300 foot level was then opened up in both directions, was it, northeasterly and southwesterly?

A. Both directions from this winze, yes, sir.

Q. How long is that level between its extreme ends; not following all those little crooks, but approximately how long?

A. Oh, approximately—do you mean the opening on the vein as far as it is open, including the stopes where we know the vein exists?

Q. Yes, as far as you know that it is upon that vein? A. As far as we have opened it?

Q. Yes, as far as the Stewart Mining Company has opened it on that level. It is shown away down here where you have gotten over into the Ontario, I guess, haven't you? [189—144]

A. Yes, that is under the Ontario. It is approximately 1000 feet long.

Q. A portion of it is not in the vein, is not that correct?

A. There are several portions of the workings marked on the 300 foot level which are not in the vein.

Q. But there is one large portion in the fault here that you say is not in the vein?

A. The portion of the drift from survey point 2032 to survey point 2113 is on the footwall side of the pay streak.

(Testimony of William Clancy.)

Q. What is the general course of that level?

A. Of the vein?

Q. Yes, as disclosed, of the vein.

A. A break occurs on that level.

Q. Where?

A. It produces a wide separation of the vein.

Q. Take that portion of the vein south of the break and tell me what the general course of that is.

A. Practically south as far as shown by the workings on the 300 foot level at that point.

Q. Take the portion of the vein north of that break.

[190—145]

A. That southern course extends for a distance of approximately 70 feet.

Q. That is as far as you have developed it there, isn't it?

A. By the Stewart Mining Company. The Ontario Mining Company developed it on a south 42 west course beyond that.

Q. Now, above that break, what is the course of the vein? A. From end to end?

Q. Yes. A. North 35, east.

Q. Now, down in the Ontario you say, upon the same level—that is not the same level; has it been developed on that same level?

A. On the same level as the 300 of the Stewart it is developed by the stopes of the Ontario.

Q. And they disclose that vein down in there as having what course? A. South 42, west.

Q. Take it south of this break that you have spoken of, Mr. Clancy, and what is the dip of the

(Testimony of William Clancy.)

vein? A. As shown by the Stewart workings?

Q. As shown by your workings and the Ontario workings [191—146] both?

A. The dip varies greatly, and the strike also varies greatly, as shown by the workings depicted on the map.

Q. Yes. The general average dip, what is that?

A. The dip from raise 328 west is marked on Exhibit 1—the dip is about 30 degrees or 35 degrees, and in the Ontario below the 300 foot level it is very steep; my recollection is that the dip is about 60 degrees at the top.

Q. In which direction?

A. A southeasterly direction.

Q. Now, take it above the break and what is the dip of the vein, the average dip as you find it from there up to the point where you connect with your winze where you opened up that drift?

A. It is shown to be approximately 45 degrees through the Gray *stop* of the Ontario.

Q. That would be southeast?

A. Southeasterly; the dip is all southeasterly. Along through the stopes up to the winze the dip is about 35 degrees, and along the portion marked “Raise No. 300D” upon Exhibit 1 and extending easterly the dip gradually [192—147] changes until it is approximately 50 degrees between the 300 and the 200 and downward to the 400 from the east end; that is, it gradually steepens toward the eastern end.

Q. Now, take this point. What is this survey

(Testimony of William Clancy.)

point; is it 2050? A. Yes, 2050.

Q. Up to that point, what is your average dip from there down to where you connect with the winze on that level; about the same, 30 or 35?

A. No, from the winze upward to survey point 2050 the dip along that level is steeper than it is southwesterly; I should say on the level that the dip would probably average 55 degrees, but it varies very much along that level, as you can see by the different levels.

Q. Now, the mine has been opened up and stopes made from the 300 foot level to the 200 foot level at the various places as shown on the map? A. Yes.

Q. And those stopes rise from the level of the 200 foot level in a northwesterly direction, or in a westerly direction?

A. The stopes show just as they are shown in their [193—148] relations to each other, just as they are on this map going upward.

Q. Now, the next development was in your Fir tunnel? A. It was.

Q. And they cut the vein first where?

A. It cut the vein near survey point 2513 on Exhibit 1.

Q. And from there you drifted along on the vein on what you call your 400 level, didn't you?

A. The tunnel was driven in straight without regard to the vein, but for quite a long distance it included the vein.

Q. For how far?

A. Testifying from memory, without looking up

(Testimony of William Clancy.)

notes, I should say to near survey point 2094.

Q. That is about how far, about 200 feet, isn't it—
no, it is more than that? A. 280 feet.

Q. What is the course of that drift along the vein
between those survey points?

A. South 48, west.

Whereupon further hearing was adjourned until
Tuesday, January 7th, 1913, at 10 A. M. [194—149]

Tuesday, January 7th, 1913.

WILLIAM CLANCY, resumed the stand for further

Cross-examination.

(By Mr. GRAY.)

Q. Mr. Clancy, at the adjournment last night we
were down in the Fir tunnel, weren't we?

A. Yes, sir, about the point 2094.

Q. At what point did you say you first struck the
vein on the Fir tunnel level?

A. We first struck the vein on the Fir tunnel level
near survey point 2513.

Q. The Silver King tunnel and workings of the
Ontario are in the same color and on the same level,
are they not? A. Practically the same level.

Q. Where do you find the vein on that level else-
where than in the Fir tunnel?

A. In the portion of the lateral drift which I am
pointing to near survey point 2100; also we find a
portion of the vein in the direction in which I am
pointing, and marked drift 415 west, and in the raise
marked "R. 415" and in the raise marked "R. 410."
[195—150]

(Testimony of William Clancy.)

Q. Where else at the same level?

A. In the drift marked "Gray Drift" in the Ontario mine, also in the drift marked "Frank Drift" in the Ontario mine.

Q. Now, it is thrown over here into the drift No. 415 west as marked by a fault, is it?

A. No, sir, that is a spur or a hanging-wall deposit of ore or an enlargement; it goes something as I am pointing out from the easternmost extension of the drift marked "Drift 405 East" extending south-westerly in the general direction to a point which upon this map, Exhibit 1, shows the intersection of shaft No. 2 and the working marked "409 Crosscut"; thence in a southerly direction—

Q. Into these workings?

A. The workings 415, and I do not know the exact course of the hanging-wall to connect with the Gray drift, but we do know there is no vein in the extension of the crosscut which is extended in a south-easterly direction from the Gray drift, and the working which has been since extended from that, and the presumption that we have made is that it connects with that drift.

Q. Now, you said that from point 2519 to point—whereabouts in here have you found your vein?
[196—151]

A. From near survey point 2513 to near survey point 2094.

Q. I want you to give me that course again; I have forgotten what that was? A. South 48 west.

Q. That is the course of your tunnel?

(Testimony of William Clancy.)

A. That is the course of the tunnel.

Q. And you say that that is in the vein throughout that entire distance?

A. Through that neck it is in the vein.

Q. Now, then, the Gray drift, what is the course of the vein from the point where you first find it on that level in the Fir tunnel, projected through to the southern end of the Gray drift?

A. Do you mean the course of a straight line connecting where we first struck the vein in the Fir tunnel with the Gray drift?

Q. Yes, approximately the general course between those points. It won't go very far out of a straight line. Well, along the Gray drift; the Gray drift is on the vein, isn't it?

A. The Gray drift is on the vein. [197—152]

Q. Now, a line along the Gray drift and up to that point there will give what course?

A. A line through the Gray drift extended to survey point 2513 will have a course of approximately north 35, east.

Q. Now, then, you have not put your elevations on there yet, have you—oh, I see; you have marked them with lead pencil?

A. No, the elevations of the different workings are marked in red.

Q. In red, I see. Now, all of these levels that you have described, the Stewart tunnel level, the 104 intermediate, the 100 foot level, the 200 foot level and the 300 are approximately level throughout their length, are they? A. They are.

(Testimony of William Clancy.)

Q. The southern end is a little bit higher in each instance than the northern end?

A. I should say the southern end is a little bit higher than the center, and the northern end is a little bit higher than the center in each case, but they are for all practical purposes level. [198—153]

Q. Now, will you please answer that question?

(Question read.)

A. That statement is true.

MR. DINES.—Q. What statement.

A. The statement made by Mr. Gray that the southern end is a little bit higher than the northern end; it is, probably a foot in some instances.

MR. GRAY.—Q. You have depicted on here in red on Exhibit 3 what you call the apex of this vein. What is the course of the apex northerly and southerly across the Senator Stewart Fraction, the general course of it?

A. The course of the apex from the point where the apex crosses the south side line of the Senator Stewart Fraction will have to be given in courses and distances in order to give it to you. It is a crescent shape, and there is no general course to a crescent.

Q. I am perfectly willing that you should give me that course in courses and distances; where is the first course that you want to give me, and between what points?

A. At a point on the south side line of the Senator Stewart Fraction vein—

Q. Now, from there to where? [199—154]

A. From that point to a point along the apex as

(Testimony of William Clancy.)

shown upon this map about 300 feet—

Q. Tell me to what working or to what place; I don't care about your feet; what working?

A. To a place where the letter "W" in the word "Stewart" in the title "Senator Stewart Fraction" is shown.

Q. What working is that or what opening on the apex as you call it?

A. There is no working or opening upon the apex at that point.

Q. All right. Then, don't give me any course at some point that you have painted on the map where the apex is not disclosed; give me the general course of your apex in a northerly and southerly direction.

Mr. DINES.—We object. The witness has a right to state that there is no general direction to a crescent.

The COURT.—That is quite true, and if counsel desires to draw a course between two points, he should designate the points. The witness has answered as to the other. The objection is sustained.

Q. You cannot give the general course of that apex in a northerly and southerly direction there, because you say [200—155] that the apex from the south line of the Stewart to the point where you have given it a twist running southeasterly is a crescent, do you?

A. To the point—the course as shown upon this map is the crescent.

Q. (Last question read.)

A. The question injects a condition which does not exist; it suggests that I have given it a twist. I have

(Testimony of William Clancy.)

not given it a twist; the apex is depicted just as it is.

Q. All right. To the point where you depicted as going in a southeasterly direction?

A. All right.

Q. Is it a crescent between those two points?

A. Between the points as I have marked it on the map, approximately 120 feet of the working which is shown upon Plaintiff's Exhibit No. 3 as the Apex drift, I can give you a course.

Q. And do you say that it is a crescent from there over to the point where it crosses the south side line?

A. Why certainly it is a crescent.

Q. All right, that is an answer. Now then, where is the point at which is disclosed this so-called apex at its [201—156] highest point above the Silligo tunnel?

A. The highest point at which the apex has been disclosed above the Apex drift is in the raise marked "Raise No. 4 East" upon Plaintiff's Exhibit 1.

Q. Yes. Now, then, show us where it is on Exhibit 3; make a mark there.

A. At the point where I have marked on Plaintiff's Exhibit 3 as apex with lead pencil marks.

Q. Now, following in a westerly direction and then in a southerly direction, where is it next disclosed upon that ground?

A. In the western extension of the Apex drift.

Q. Just mark that point upon the Exhibit 3.

A. Near the point which I have marked "A" it appears in the back of the drift near that point.

(Testimony of William Clancy.)

Q. How about this point down here that you marked?

A. I was merely locating the face of the drift there.

Q. Where does it next appear, following south?

A. The next point at which it appears is on the south side lines of the Senator Stewart Fraction, at which point we actually see the top of the vein.

Q. With those three points, Mr. Clancy, known, you [202—157] draw what you call a crescent, showing the apex of the vein, is that correct?

A. With those three points and the location of the stopes, we do locate the apex.

Q. I say, with those three points which you say are the only three points at which the apex is disclosed, you draw what you call a crescent for the apex of the vein in a north and south direction across that claim? A. We will—

Q. Answer that question now, and then you can explain. A. No.

Mr. DINES.—I object. The witness has a perfect right to say that he takes other data into consideration.

The COURT.—Let him answer yes or no, and then he can explain.

Q. Now explain.

A. We use the three points which I have described. We have the stopes into a point where the vein is no longer profitable, and in other portions of the vein stopes we find a fault cutting them off, and we find faults in the raise which I have shown you. We had the faults in this Apex drift and our

(Testimony of William Clancy.)

stopes very near the Apex drift, only 15 [203—158] feet below them, so that we get our three points which I have described, and the location of the top of those stopes and locate the apex at the place as it is.

Q. Now, then, from the highest point at which you have found that which you call the apex up here in the raise from the Apex drift, to the point where it crosses the east line of the Senator Stewart Fraction, what is the course between those two points?

A. Approximately south forty degrees east.

Q. You say, then, that the northern apex, as you call it, that along that apex the vein has been disclosed where; you can perhaps assist the Court more by going over to Exhibit 1; first, in your Apex drift, which you have already described; now, follow on down.

A. In the eastern extension of the old lower Stewart tunnel, marked "Drift 5 East," near survey point 2584; then on this end, near the easternmost face of the 100 foot level, marked "Drift 105 East"; descending along raise marked "Raise 218 East," to the 200 foot level; in the back of the level near survey point 130; at a point approximately 20 feet west of the present eastern face of drift No. 205 east; at a point in a raise marked "Raise 214 East"; at a [204—159] height of 25 or 30 feet above the 300 foot level; in the eastern extension of drift No. 405 east, near a working marked "Raise 415 East." [205—160]

(Testimony of William Clancy.)

Q. Mr. Clancy, I have now placed upon Exhibit 2 a tracing of the apex as you have depicted it upon Exhibit 3. There is no doubt in your mind that that is a correct tracing of it, is there?

A. Just in a moment I will see.

Mr. DINES.—You had better trace it over Exhibit 3.

Mr. GRAY.—If he wishes to he can do that.

A. I can find out here, and see if there is something wrong with it. You must have used the wrong scale and put the apex there, because it is right over the top of this drift, just right in the end of that drift.

Q. Outside of that, is it all right—outside of that one blow that you gave it?

Mr. DINES.—I submit, your Honor, if it purports to be a correct tracing he should have an opportunity to find out. This witness cannot in the hurry of cross-examination tell—

Mr. GRAY.—All right.

The COURT.—If it is meant to be a tracing it can be very readily seen by placing it on the Exhibit 3.

Mr. DINES.—If the witness is satisfied himself, I am.

A. The tracing is correct. I will put it over this map (Exhibit 1), and I can answer your other question very [206—161] quickly, too.

Mr. GRAY.—Q. Let us just tack it up here for a minute (on Plaintiff's Exhibit 1).

A. The apex is not shown quite far enough out on the 200 level to be exact and it does not extend down

(Testimony of William Clancy.)

to the 400 level as I have described it. Outside of that it is correct. It does not extend to the point where I have described the apex as being at the base of raise 415 east. It is a very little variation, it is practically the same, there would be only a movement there just over this drift.

Q. That is down in an easterly direction from this drift, south from the apex?

A. About the width from the apex as shown; that is, the south edge of the apex would then be the north edge; that is the only difference it would make.

Q. Now, then, from that point to the point where it is developed on the south line of the Senator Stewart Fraction claim the apex is simply painted by you according to your judgment as to its location?

A. According to my judgment using the stopes and location of the apex as I found it in other places.

Q. You did not find it between those places, did you? [207—162]

A. That is simply a mistake the same as a clerical error.

Q. No, I say between this point in the Apex drift and the south line of the Senator Stewart Fraction you did not find it?

A. Did not actually see it.

Q. No, sir, because it is not actually developed.

A. Because the stopes were not driven up to the apex.

Q. Certainly. Now, you suggested something about this tunnel, this little surface tunnel up here; you do not claim that the vein tops at the surface

(Testimony of William Clancy.)

of that tunnel, do you, the apex?

A. Only what is down in that tunnel—

Q. Just answer the question. Read my question to the witness, will you. (Question read.)

A. No, I do not.

Q. The apex of the vein as you have described the apex does not come to the surface at any place as far as you know either on the Senator Stewart Fraction or the Senator Stewart claims, does it?

A. If by surface you mean out in the air, it does not. It comes to the surface, as I would call the surface, in [208—163] the top of raise 4 east.

Q. On the Apex drift?

A. On the Apex drift on Plaintiff's Exhibit 1.

Q. Outside of that point it does not come to what you call the surface any place, does it?

A. That is the only place we have developed it on the surface.

Q. Well, as far as you know that is the only place, isn't it? A. So far as it is developed.

Q. What is the dip of the Osborne fault?

A. It varies from sixty to seventy, seventy-five, and in places as steep as eighty-five degrees.

Q. In what direction? A. Southwestward.

Q. What is the average dip as you have determined it? A. Seventy degrees.

Q. When did you determine that to be the average dip of the Osborne fault?

A. I gave that as an average from the dips which I have seen in the mine.

Q. Isn't it true that you testified before his Honor

(Testimony of William Clancy.)

[209—164] here in preliminary proceedings some time ago in this same case in which you gave the average dip of the Osborne fault as sixty-five degrees?

A. I may have said that the average dip at that time was sixty-five degrees before the raises were driven and the openings made along the faults that we have since found; I opened it up on the eastern end, which is very much steeper.

Q. You did say so, didn't you?

A. I probably did.

Q. Then it had been opened up at numerous places, hadn't it? A. Not as many as it is now.

Q. How many more has it now? There is your testimony. You so testified at that time, didn't you?

Mr. DINES.—I submit the rule is to read the testimony to the witness so the record can show it.

The COURT.—He can read any part he wants to; that is correct.

A. There I have taken several different dips on that Osborne fault, and the average was sixty-five degrees; that was an average of the dips I had at that time; I took the dips and averaged them for you. [210—165]

Q. How many places has the Osborne fault been developed since that time?

A. It has been developed to a considerable extent in raise 314 east.

Q. Just point to that.

A. (Witness pointed on map.)

(Testimony of William Clancy.)

Q. Was it developed there at that time, at the time you testified?

A. At the time I testified we only saw the approach to the fault and saw the fault in one place.

Q. You did not pay any attention to the local dips?

A. Yes, sir, we took those and averaged them up. You know it is practically impossible for a man to say anything between the limits of sixty-five and seventy degrees. You have the Osborne fault disclosed in the 400 level and the tunnel level. I took the difference in elevation between the 400 level and the tunnel level and the horizontal distance and got a dip from that.

Q. In other words, the greater distance over which you have a fault or vein developed the safer you are in taking the points along that development instead of some local dip? [211—166]

A. Yes, sir, unless you have some other data to know that would not be correct.

Q. What is the course of the Osborne fault?

A. The course as disclosed on the 400 level is north eighty west.

Q. Just the average, the general course of it?

A. I will say from north 75 to north 80 west.

Q. I understood you to say that the Osborne fault was developed in the Siligo tunnel.

A. Yes, sir, Apex drift, marked on Plaintiff's Exhibit 1.

Q. You depict in there the workings in the Ontario and the green lines represent the drifts on what are known as the Gray and Frank ore bodies, are they?

(Testimony of William Clancy.)

A. The green lines represent the workings of the Ontario; the lines above which the red spaces are shown—the red spaces are the stopes; the drifts are marked in green.

Q. The most southerly drift here, what is that?

A. That is the Frank drift.

Q. That is the Frank drift. Now, I want the course of that drift. That is on the vein, isn't it?

A. It is.

Q. Take it from end to end and give me the course of it. [212—167]

A. South 41 degrees west. I will put a line on there. The line which I have shown the average course of the Frank drift is approximately south thirty-nine degrees west. Counsel objected to my saying south 40 west. I usually give those courses as near as five degrees.

Q. Put it on again.

A. If you want to take a few minutes on it, I will plat it for you and bring it in this afternoon.

Q. All right. Now, give me the Gray ore body.

A. I can give you that from memory; it is north forty east.

Q. And there is one other in there called the May, I believe that is approximately parallel with the other, isn't it?

A. That is approximately north thirty-nine degrees east.

Q. This is the Frank, did you say? A. It is.

Q. From the Frank the stopes have been extended upward in a westerly direction?

(Testimony of William Clancy.)

A. The stopes have been extended upward in the Frank drift in a westerly direction. [213—168]

Q. Yes, sir. Following the dip of the vein upward in that direction. A. They have.

Q. And what is the dip of the vein there?

A. My recollection is that the dip is about sixty degrees in that stope. It is very steep, much steeper than the other portions of the vein.

Q. All right. Then above the Frank there are some workings in the Bunker Hill's ground there, aren't there? A. There are.

Q. And that is the same vein going on upward?

A. It is.

Q. And it is next shown here in stopes above the 300 level?

A. It is shown in the drift of the 300 and in stopes above the 300 level.

Q. What is the course of those stopes?

A. Do you refer to the ones that were marked in the Bunker Hill ground?

Q. No, here above the 300 level.

A. The general course of the stopes above the 300 level near the letter "3" in the 300 level is approximately [214—169] north twenty east.

Q. Now, then, you follow the vein upward to the westerly or northwesterly as you have it on its upward course through—what kind of a working is this? A. That is a raise on mineable ore.

Q. Yes, sir. To the 200 level; is that correct?

A. We follow the raise from the 300 into the workings of the 200 level of the Stewart mine.

(Testimony of William Clancy.)

Q. Then up into the stopes above the 200 level?

A. Yes, sir.

Q. What is the course of the vein as disclosed in those stopes above the 200 level?

A. Do you want the general course of all the stopes as shown here?

A. Just generally through those stopes there as you have developed the vein. There is no use starting in on the footwall in one end and winding up on the hanging-wall on the other.

A. Approximately north 35 east.

Q. Then you follow on up the Stewart tunnel level through a raise in the vein, don't you?

A. We do. [215—170]

A. And as I recall, you said that the general course—that that Stewart tunnel level from its southern base up to the Deering crosscut was approximately north 30 east, the course of it.

A. Very nearly that.

Q. That is the longest working upon the vein, isn't it, practically the whole property?

A. On the Stewart tunnel level?

Q. Yes, sir. A. The 200 is—

Q. The same length?

A. Probably a little longer. Approximately the same length.

Q. And the stopes above the Stewart tunnel level, the vein has been stoped out in steps or terraces, as counsel has suggested you used the term yesterday, on the upward course of the vein to the northwesterly, hasn't it?

(Testimony of William Clancy.)

A. They have been stoped in a northwesterly direction as shown upon the map.

Q. On the inclination of the vein upward?

A. On the inclination of the vein upward.

Q. And the general course of those stopes above the [216—171] Stewart tunnel level is approximately the same as the tunnel level itself, isn't it?

A. It is.

Q. The direction of the dip, of course, is at right angles to the strike, isn't it? A. It is.

Q. Mr. Clancy, go to the 300 level at what you call the apex of the vein.

A. Upon which map do you wish me to place that?

Q. I do not care, either one. I suppose they are just the same.

A. I designate it more nearly by Plaintiff's Exhibit 1.

Q. Yes, sir.

A. The apex of the vein is between survey point 2528 and survey point 2569.

Q. There the apex of your vein is disclosed as you claim it? A. Yes.

Q. You can follow upon the level from that point along that level to the ore bodies in the Ontario, can't you?

A. You can follow along that level on the ore into the [217—172] stopes of the Gray ore body of the Ontario.

Q. You would simply follow along your Brown level in the vein, keep within the vein on ore all the way over into the ore bodies in the Ontario?

(Testimony of William Clancy.)

A. With the exception of a short distance near survey point 2052; the opening is in the footwall, but you can follow on the vein by going in the stopes and coming down raise 314 west in the ore bodies of the Ontario.

Q. Just for a short distance that it is off the vein?

A. It is.

Q. Those ore bodies that you speak of there are within the lines of the Senator Stewart Fraction extended southerly? A. They are.

Q. Can you follow along the level from any place on this apex that you have marked up here to the westward—follow on a level there and get down to the Ontario ore bodies?

A. We do not know what the geological conditions are to the westward as described upon our maps, but presuming the vein extended upward, if the Ontario was stoped up high enough we would.

Q. You would not get into the Ontario, though, would you? [218—173] A. The Ontario claim?

Q. Yes, sir. A. No, sir.

Q. What is the course of the stopes above the Stewart tunnel level and beneath the Siligo—the Apex drift as you call it? Let us start just above the Stewart tunnel level here and work upward. You start at the footwall at one place and wind up at the hanging-wall in another. Just say your black lines are the outlines of the hanging-wall side of your stopes, aren't they? Just follow generally one of those black lines.

Mr. DINES.—We object to him instructing the

(Testimony of William Clancy.)

witness what to follow in giving the course of the stopes unless there is a rule of law that requires him to follow that line. I do not understand that the course of a vein is determined by the hanging-wall.

The COURT.—Of course not, but he can ask any sort of a question he likes.

Mr. GRAY.—I understand when you give a course you start on the hanging-wall on one place and wind up on the footwall on another.

Mr. DINES.—No. [219—174]

The WITNESS.—I will do that if that is what you want. A good average of the course of the stopes, as near as I can determine it, is north 70 degrees east, the stopes beneath the Apex drift. [220—175]

Q. The apex of the vein on the northerly side as you have disclosed it is lower in elevation where it crosses the end line of the Stewart than it is up there where it is disclosed above the Apex drift.

A. It is.

Q. As I recall, you have testified that at the Apex drift it is within 10 feet of the surface of the ground, something of that kind, up above the apex here.

A. Within ten feet of the slope of the raise we find the apex of the vein just at the end of the surface wash.

Q. Now, what is the elevation of the vein at that point? A. Approximately 3025.

Q. In traveling down here, how far is it from that point to the point where you first found it?

A. The next point we find it is in the Apex drift

(Testimony of William Clancy.)

approximately 80 feet of the point where we found it in the raise.

Q. What is the elevation there? A. 3004.

Q. Next where do you find it?

A. In the eastern end of drift No. 5 east, near survey [221—176] point 2584.

Q. That is the Stewart tunnel?

A. The old lower Stewart tunnel, as marked on Exhibit 1.

Q. How far is it to the point where you find it there on your plan map? A. About 300 feet.

Q. How much lower vertically is it at that point than it was up where you last saw it?

A. It is about 90 feet difference in elevation.

Q. Then you follow it down through this raise to the 100 foot level?

A. The apex is not disclosed in the raise at the point where the bend is shown, but we follow down along the vein and the apex is disclosed in the eastern vein of the 100 foot level right near there and on down in the raise 218 to the 200 foot level.

Q. And what is the elevation of the 100 foot level?

A. Approximately 2841.

Q. That is how far below the tunnel level?

A. Approximately 80 or 85 feet. [222—177]

Q. Where you disclose it in the 200 foot level, the elevation is what?

A. Approximately 80 feet below the 100 foot level.

Q. Then next below that, where do you disclose it?

A. In the 300 foot level approximately 100 feet below the 200.

(Testimony of William Clancy.)

Q. And next below that?

A. In the eastern end of the 400 foot level which is approximately 70 feet below the 300 foot level.

Q. And what is the elevation in the 400 foot level where you disclosed the vein or the apex?

A. Approximately 25—approximately 2600 feet—approximately 2610. It is a short way above the bottom of the level. The elevation of the level is approximately 2600, and this is a short distance above, and that explains my hesitation.

Q. Certainly. Now, the 300 foot level discloses the apex of the vein, does it? A. It does.

Q. As it crosses the southeast line of the Senator Stewart Fraction?

A. On the 300 foot level as shown on Plaintiff's [223—178] Exhibit 1, the actual apex is a short distance of the end line of the Senator Stewart Fraction, but the working on that level disclosed the apex a short distance west of the end line of the Senator Stewart Fraction in raise 314; that is, we have two points of the apex a short distance apart.

Q. Now, the elevation here on the 300, can you give me that; 2662, isn't it?

A. The elevation of the apex where that drift has crossed the east end line, would be approximately 2670 at the present time.

Q. You use the United States Geological Survey datum, do you, or do you use an arbitrary datum?

A. It is an assumed elevation of 2900 feet at a point near the mouth of the old lower Stewart tunnel, but

(Testimony of William Clancy.)

that is approximately the same as that used by the Geological Survey.

Q. This raise parallel to the east end line of the Senator Stewart Fraction claim is how long?

A. By horizontal projection upon this map, 60 feet.

Q. And that is at what pitch; what is the angle?

A. It varies from 50 degrees to 80 degrees.

Q. And that connects the 300 with the 200, does it?
[224—179]

A. That connects the 300 foot level with the 200 foot level.

Q. Is the Osborn fault disclosed there?

A. It is.

Q. Where?

A. In the upper portion of the raise. It appears near the word "Raise" upon the map, and probably a short distance below it, but in that portion of the raise we clearly see the fault.

Q. And from there up? A. From there up.

Q. When was this raise here between the 200 and the Stewart tunnel driven, this connection?

A. Recently.

Q. Since the injunction hearing, since this lawsuit has been commenced? A. Yes.

Q. Was there any particular reason why there was not a connection made between the Stewart tunnel level and your so-called Apex drift along this so-called apex?

A. There was no particular reason except the expense and the trouble of making it and the time. We can follow, [225—180] there is no doubt in my

(Testimony of William Clancy.)

mind that we can follow there.

Q. I did not know that expense cut any figure in this case.

A. We did not have the time; we are short of work now.

Q. That is the only reason?

A. That is the only reason I know of. It can be followed.

Mr. GRAY.—You may inquire.

Redirect Examination.

(By Mr. DINES.)

Q. Are you following that work in this drift on Exhibit 1, designated the Apex drift, now?

A. Yes, sir.

Q. How long have you been prosecuting it?

A. Since the work began it has been prosecuted continuously; probably two months ago, I don't remember the exact date.

Q. You are still prosecuting it?

A. We are still prosecuting it; it has been prosecuted continuously from the start. [226—181]

Q. You were asked about the dip of a vein being at right angles to the strike, and I understood you to answer that the dip was at right angles to the strike. By that you mean what is known as the true dip?

A. True dip at any particular point. That only applies to the points or special place where it is taken.

Q. Now, do veins penetrate the mass of the earth in their course on straight lines?

(Testimony of William Clancy.)

A. They seldom do. I never saw one that did.

Q. Do they penetrate the earth on straight lines on their dip as they go downward?

A. Not to my knowledge.

Q. Does the course of an apex that crops upon the surface of the earth determine the course of the vein?

Mr. GRAY.—I object. That is a question of law, and there is not any apex as far as they have testified here that crops on the surface of the earth.

(Objection overruled; defendant excepted and exception granted.)

A. The course of the apex does not correspond with the course of the vein in the ground, the strike of the vein. [227—182]

Q. Do workings made upon the vein beneath the earth accurately show the course of the vein itself?

A. They show the actual intersection of the vein with the horizontal plane.

Q. How wide do you find the Stewart vein to be between the walls; what thickness of vein?

A. It varies greatly in width, from a few feet to several feet; six feet or seven feet or eight feet, and some cases wider than that. I would have to refer to notes and plat them to give you the exact width in different places.

Q. It varies from a few feet to how many feet?

A. To eight feet, I should say.

Mr. FOLSOM.—Q. Is that at right angles to the footwall?

(Testimony of William Clancy.)

A. Yes, I mean the width of the vein as it is shown in some places.

Mr. DINES.—Q. That is at right angles to the footwall? A. Yes, sir.

Q. Now, you take a vein at a portion of its width where, at right angles to the footwalls the thickness of the vein is shown to be eight feet, and compare it with [228—183] another working, taking the footwall at one point and the hanging-wall of the wide portion at another point, and does it show a variation in the course if you take a line between those two points—do you understand me?

A. I did not follow your question.

Q. I am taking an assumed point in a vein, and taking another section in the vein that has a thickness of eight feet, and I draw from the same point in each instance, one to the hanging-wall and one to the footwall; do those lines show the same course?

A. They do not.

Q. Where stoping is done in a mine in the extraction of commercial ore, is it done in regular or irregular lines or planes?

A. Irregular lines; it is done just as the ore is found.

Q. Did you ever know of a vein where every point on its apex was at the same elevation?

A. I never did.

Q. What is the fact in veins, whether they be sub-surface apexes or apexes that outcrop on the surface of the ground, as far as the elevation of the different points [229—184] in the apex?

(Testimony of William Clancy.)

A. They vary greatly. The apex is usually very irregular in regard to elevation at different points along the apex.

Q. Did you find anything in the fact that the elevation of the apex of this vein as it is disclosed immediately beneath the wash right under the wash in the upraise from the Apex drift, is at an elevation of 3025 feet, and your apex as disclosed at the easterly side line is at an elevation of 2672 feet?

A. I wish to correct the figure which I placed upon the map as 3672. In that I was using the elevation of the apex at the back of the drift, and I find that the apex from the east end line of the Senator Stewart Fraction, as between the point where we see it in raise 314 and the point where we find it in the east drift on the 300 foot level at the elevation as near as I could determine it, which is very near the absolute elevation of 2682, and the elevation as given in the raise is correct, 3025 feet.

Q. Now, taking those elevations, do you find anything in the fact that you have one point in an apex at an elevation of 3025 and another point at an elevation of [230—185] 2682 that causes you to believe there is any departure from the normal or from what often occurs as miners mine and find veins in the hills, by reason of that difference in elevation?

Mr. GRAY.—I presume we are trying this vein instead of some other that miners find. I object to the question.

(Objection overruled. Defendant excepts and exception allowed.)

(Testimony of William Clancy.)

A. We find that condition anywhere. Just move that whole body and vein out a little further, a few hundred feet over to Deadwood gulch, and you would have the same condition.

Q. Now, as to the points that you have designated in cross-examination as the points where you have actually in the workings reached and seen the highest point of the vein, how did you follow up to get that point, on the true dip or an irregular dip?

A. At the point in the easternmost portion of the map shown as raise No. 415 on Plaintiff's Exhibit 1, the raise was put up on the true dip of the vein to find the top of the vein.

Q. And by true dip you mean at right angles to the strike? [231—186]

A. Yes, as miners express it, it is square with the vein. Also raise No. 314 east was put up on the true dip to the 200 foot level, and raise 218 east was driven up with the vein on the left side or south side of the raise and the fault on the north side of the raise. I will supplement that answer and say that that condition in raise 218 is true to the 100 foot level.

Q. Now, you were asked about the jumps from these different points. Where the apex was actually disclosed, in drawing your line on Exhibit 3, designated in red as the apex, did you have data between the points that enabled you to determine the line in question with sufficient accuracy to tell whether or not it fell within or without the surface boundaries of the claim; if so, point out the data that you had?

A. Beginning at the top of raise 218 east on the

(Testimony of William Clancy.)

old lower Stewart tunnel level near survey point 2584, which I have heretofore described as the apex of the vein, extending along the vein in a westerly direction to near survey point 2512 we are on the vein, which was run in a westerly direction, and dipping southerly. At the little place on the map marked in blue about ten feet west of survey point [232—187] 2512 there is a good showing of commercial ore approximately three feet in width, dipping south with a strike east and west. Above and just north of survey point 2512 the fault is shown against which the vein terminates on its upward course, but at that point we did not have the top of the vein. Extending along our workings on the east No. 3 crosscut and into the working shown as drift 4 east we have the vein with a fold, a flattened condition, and near survey point 2090 the vein is shown with at that point a southeasterly course and a northeasterly dip. From that data and the knowledge that the vein existed in the Apex drift, we put the apex as existing between those two points. The work to prove that up we did not have time to do; the Apex drift is now being extended to find the apex as it exists against the Osborn fault.

Q. If you project from your points of the stoping as shown on your stoping map, Exhibit 2, the foot-wall or lowest portion of the apex of those stopes where you have the wall disclosed to the surface, or to the Osborn fault, would that give you any line that falls within any certain portion of the claim?

A. The Osborn fault is shown to be a persistent

(Testimony of William Clancy.)

fault [233—188] through the ground in question, and a line drawn between the point where we know the Osborn fault to exist in the Apex drift near survey point 2502 and the point where we know the Osborn fault to exist in the old lower Stewart tunnel level near survey point 2584 would give us a bounding plane to our vein; that is, we know from what is developed below and above, we know within all human probability that that vein will not go beyond the plane of that fault; therefore the edge of the vein or its upward termination would lie within the Senator Stewart Fraction claim.

Q. Have you made any workings beyond that plane of the fault to determine whether or not vein matter exists beyond the face of that fault?

A. We have driven the working marked upon Plaintiff's Exhibit No. 1, marked "Drift 5 East" beyond survey point 2584 for a distance of approximately 35 feet, beyond the Osborn fault into country rock.

Q. Did you disclose any vein material in that portion of the drift as you went on beyond the point where you have found the top of the vein? A. No.

Q. Are there any other portions of the mine where you [234—189] have prospected to see whether or not the vein could be determined the face of the Osborn fault?

A. Our Fir tunnel level was driven on the footwall side of the Osborn fault, and discloses the vein as I have described it on the 400 foot level near survey

(Testimony of William Clancy.)

point 2513; beyond that, underneath the fault, we find nothing.

Q. Does it disclose the fault?

A. The fault is shown in the Fir tunnel near survey point 2513; also raise 415 was put up above the 400 foot level near survey point 2537 beneath the south face of the Osborn fault from the top of raise 415, which is approximately 15 vertically above the 400 foot level; that drift was driven eastward for a distance of 25 feet, and nothing was disclosed, nothing in the shape of a vein; there was no vein of any kind disclosed in that working beneath the Osborn fault. This work which I have described as raise 415 east and the drift from the top of raise 415 east was driven by the Ontario Mining Company with the consent of the Stewart Mining Company.

Q. Now, are there any other portions of the vein where the workings disclosed that where the vein comes in contact with the fault on its upward course that it cannot be [235—190] followed further?

A. We have driven through the Osborn fault on the eastern extension of the 200 and the 300 foot levels for a short distance beyond the termination of the vein, and found nothing in the drift.

Q. Does your vein begin to turn in the shape that it is shown on the apex map, Exhibit 3, before or after it has come in contact with the Osborn fault?

A. It begins to turn long before it comes in contact with the Osborn fault.

Q. How many feet before you find the Osborn fault do you have that turn in your vein where its

(Testimony of William Clancy.)

course seems to be changed?

A. Something over 400 feet.

Q. In answering that question, you have taken the line of the stopes immediately under the northerly and southerly portion of the apex, have you not?

A. I have; I have taken the distance from the south side line of the Senator Stewart Fraction to the point where we know the Osborn fault to exist in the Apex drift.

Q. Did you find that turn to any extent followed and indicated in your stopes upon the eastern portion of the [236—191] Stewart mine, easterly from those stopes that you have referred to?

A. Yes; on the old lower Stewart tunnel level we have stopes to which I am pointing above drift No. 5 east and drift No. 5 west as they are marked upon Exhibit 1.

Q. Was that curve or turn that is shown in these stopes on the map the one that resulted from your mining in the usual manner on your vein, or were they made for the purposes of this litigation?

A. That was mined long before this litigation was thought of.

Q. Where your turn in a crescent shape is shown to the southeast of the line of stopes on Exhibit 2, following immediately under the Apex drift, when was that work done?

A. The stopes between the 100 foot level and the Stewart tunnel level between drifts No. 5 east and No. 5 west was done in the early part of 1911; probably they were finished in—they extended into the

(Testimony of William Clancy.)

closed near survey point 2502 with the mark "W Prime."

Q. Following still to the westerly, mark the point where your apex is disclosed in the western branch of the Apex drift with "W2."

A. I have marked with "W2" near survey point 2532 the place where the apex is disclosed in the western Apex drift.

Q. Where is what is known as the Clancy fault?

A. The fault which I have described as a big fault, and which has been called the Clancy fault is shown in the west face of the west Apex drift as shown upon Exhibit 1. [240—195] It is also disclosed at the point where the "W" appears upon the map at the top of the raise marked raise No. 2 west on the south side line of the Senator Stewart Fraction claim.

Q. Now, as you have followed up the apex of that portion of the vein that runs from the Stewart Fraction south side line in the crescent shape to the point that you have marked "W" and "W-2," will you please state whether or not the Clancy fault has been encountered? [241—196]

A. Referring to Plaintiff's Exhibit 2 remember that the Clancy fault was shown at the top of the stopes, the northwesternmost point which I will mark "C" in lead pencil on Plaintiff's Exhibit 2. That is the only point between the point marked "W" at the top of raise 2 west and the west face of Apex drift.

Q. Is there not another point in a raise or in those stopes where your Clancy fault is disclosed along

(Testimony of William Clancy.)

that line? A. There is in the Senator Stewart.

Q. Where is it in the Senator Stewart?

A. It is shown in the top of a raise near where the word "cut" appears in No. 7 cut on Plaintiff's Exhibit 1. It is the top of raise marked No. 7 raise.

Q. Now, you were asked on cross-examination if you did not—from the raise along the Senator Stewart Fraction south side line where you found the top of the vein jumped to a point up in here. What about the vein at that point where the Clancy fault is exposed at the point "C" that you have given?

A. I had forgotten about the point "C," or it slipped my mind at the time I was being cross-examined. The conditions at point "C" are the same as they *are the* top of raise [242—197] 2 west.

Q. Now, have you made any effort to find whether or not the vein goes on an upward course any farther than that Clancy fault where it is found at the top of it lying against that Clancy fault?

A. We are very desirous of finding an extension of the vein, if possible.

Q. What work has been done to show that?

A. Extended from the top of the stopes where the vein was cut off by the Clancy fault, extended a crosscut marked upon Plaintiff's Exhibit 1 as No. 7 cut and shown in pink, that working was extended northward and northwestward through shattered country rock to its present face near the word "level" in 85 foot level, as shown on Plaintiff's Exhibit 1.

Q. Well, were there some short crosscuts driven

(Testimony of William Clancy.)

from the footwall in some other portion?

A. That is the only working which we have extended from the workings above the old lower Stewart tunnel level above drift marked drift 4 west in the endeavor to locate the vein, because that working made a practical connection although not a physical connection with the level marked 85 foot level from the raise marked Samuel's raise. Both [243—198] workings show a wide area of shattered country rock.

Q. Are you speaking now of the Samuel's raise?

A. I am speaking of the crosscut southeastward from the Samuel raise, marked 85 foot level and a crosscut marked No. 7 cut which extended from the top of the stopes above the old lower Stewart tunnel level marked drift 4 W.

Q. Then, what do you say as to the Clancy fault where the vein comes in contact with that. Can the vein be traced farther or not?

A. I would say you could not trace it farther. We were unable to do so, and on the eastern end at the point marked "W," raise 2 W., the top of that raise was within about 90 feet of the surface; the surface wash is rather deep at that place. Our surface map will show a gulch extending up the top of the mountain and downward, in which place the wash is very deep and the vein has no doubt been eroded beyond that.

Q. You were asked on cross-examination about this vein, Stewart vein, on its dip underneath this portion of the apex, and by this portion I am refer-

(Testimony of William Clancy.)

ring to the crescent shaped portion extending from the south side line on toward the Apex drift, and certain flat places where portions of the [244—199] vein were pointed out to you. Please locate on that map the extent of that change of the dip of the vein which you call a flattening or roll of the vein at that point where its dip seems to be changed.

A. The flattened portion extends between the green level marked 104 intermediate and the words "Stewart" and "Senator Stewart." I can describe that portion on Plaintiff's Exhibit 1 from survey points. Beginning on the old lower Stewart tunnel near survey points 2090, going in a southwesterly direction along the tunnel, to near survey point 9522, thence easterly from survey point 27 along drift 5 W. to survey point 43, and thence along drift 5 east to survey point 2512. That roughly describes the flattened portion as it appears upon the tunnel level, the old lower Stewart tunnel.

Q. I will ask you if going a dip in this portion in an easterly way, taking that dip immediately underlying this apex, what is the dip the vein starts out with, taking the true dip at right angles to the vein, the strike of the vein.

A. You mean the amount of dip?

Q. Yes, the amount of dip, if you have it, if you know [245—200] about what it is, or if you cannot express it on an average, give it a variation from so many to so many degrees until it gets to the flat place.

A. From the apex to the tunnel level below, where

(Testimony of William Clancy.)

the word "Fraction" appears on Plaintiff's Exhibit 2, the dip would average forty-five degrees at that particular section.

Q. Then you go to what kind of a dip as you go on toward the east?

A. My recollection that forty-five degrees will apply to the entire stope above the old lower Stewart tunnel level to the apex, that is, an average.

Q. Yes. Now, then, when you come to the condition that I have just described where it is flatter, what is the dip as you go easterly, if you take that course for the dip?

A. The dip is practically nil, it is level for a short distance, and down about ten degrees, a very slight dip, I don't remember just the exact dip that you would find by going across in an easterly direction.

Q. Then in following the dip on the easterly course that opposing counsel interrogated you about on cross-examination you encounter the same conditions that you find in following the easterly and westerly apex after it has [246—201] curved in a southerly direction, do you not, as to the flattened condition?

A. After coming down you would have to go up if you travel in an easterly direction. The word "dip" does not apply to that easterly direction.

Q. I am speaking of the easterly direction that he called your attention to; he was giving you a dip of this vein in an easterly or southeasterly course. Now, in taking that course, you would go down, then you would go on a level and up, is that correct?

(Testimony of William Clancy.)

A. In taking that course perpendicular to the lines you would go down to that flat place, then practically level and in the eastern portion you would not have any vein to follow.

Q. Just take the dip of the easterly and westerly portion of the apex as we claim it, and going down in a downward course as we claim it between our end lines onto the Ontario, just tell the Court in a general way what conditions you meet in traveling that course and especially call attention to the 100 foot level.

A. From every point in the Ontario workings, pass a plane parallel to the east end line of the Senator Stewart [247—202] Fraction, you would travel upward from the Ontario workings to the upper edge or apex as is shown upon the Plaintiff's Exhibit 3; that is, if planes were passed parallel at any intervals the course would be upward from the Ontario workings to the apex as shown upon Plaintiff's Exhibit 3.

Q. Would that be a straight line upward course or would it have variations that follow the variations in the dip of your vein?

A. It would have variations.

Q. How would it be about the one hundred level. Above the 100 level?

A. The last 100 feet or practically 100 feet, from 80 to 100 feet, would be very steep on that course.

Q. Or is it on the 200 level?

A. The same condition applies.

(Testimony of William Clancy.)

Q. And the 300 level in coming in that southerly direction?

A. You are speaking of the eastern end of the 300 level?

Q. No, I am speaking of the 300 level generally, take any and all portions of it.

A. So far as the vein has been developed the course from the Ontario workings would be upward through the 300 [248—203] foot level, but as the 300 foot level would show on a section passing through the Gray ore body it would be more nearly level, it would show something like a section through the piece of ground which I have described through the word "Stewart" on the tunnel level.

Q. You were asked by counsel if it were not true that the Green workings in the Ontario and the Silver King were on approximately the same level and if they were not on the same level as the Fir tunnel level, and you were traced down through the Fir tunnel level and asked if you would not go to those workings on the same level. Please explain that to us now so I can definitely understand what is the position of the vein through the portions of it that are penetrated by the workings through which he took you in getting down to the Ontario ore bodies.

A. Mr. Gray took me through the Fir tunnel level, then my recollection is that he stopped; he went back to the 300 foot level and asked me if it was not possible to go along the level into the workings of the Ontario, but the line through which he took me is not in a plane parallel to the east end line of the Senator

(Testimony of William Clancy.)

Stewart Fraction. That was the direction which he described; he asked me if [249—204] I could not start upon the apex as shown in the 300 foot level and go along the 300 foot level into the openings of the Ontario in the direction that I have indicated upon Plaintiff's Exhibit 2.

Q. You told him you came into the top of the Ontario stopes; is that the connection that is shown here where the ground meets the red in Exhibit 2?

A. It is.

Q. What is the height of the stope at that point?

A. Approximately 70 feet vertically.

Q. The entire stope—other portions of the stope would be below the point where that entrance is made, would it not, at a lower elevation, is that right or not?

A. There is a very small portion of the stope above that. All the rest of the stope is below it.

Q. And how about your Frank ore body in the Ontario, is that correctly shown, the place here, the location, as farther to the south than the May and Gray? A. It is.

Q. These flat places that you have described are rolls in the vein. You first noted them as I understand in the intermediate level designated in green on Exhibit 2, is [250—205] that right?

A. In the course of the workings that was the first place they were noted, the first place that I saw them, rather, I should express it; the flattened condition is shown in the eastern portion of the tunnel level.

Q. Now, in going to your next level below the intermediate level which would be your one hundred

(Testimony of William Clancy.)

level, would it not? A. It would.

Q. What are the conditions of the stopes from that level in reference to this roll or flattened condition of the vein?

A. They are very flat between the drift shown upon Plaintiff's Exhibit 1 as drift 105 west and the portion of the stope through which raise 100-C passes. There is a very flat space for possibly, approximately fifty or sixty feet in that section of the ground.

Q. Then between the 100 and 200?

A. There is a flat portion of the vein which has been stoped as shown upon plaintiff's exhibit where the letters "RT" of Stewart in the title Senator Stewart appear.

Q. And between your 200 and the 300? [251—206]

A. There is an exceedingly flat portion of the vein shown near survey points 2096 and 2014 on Plaintiff's Exhibit 1 marked as stopes upon Plaintiff's Exhibit 2 near the letter "L" in Lazy Jean.

Q. How much of the course of the vein as it goes downward do you find that widened condition at that point?

A. At the point which I have just described it takes 100 feet in width to raise 20 feet in height, which shows a very flat vein, a flat ore body.

Q. And between the four hundred and three hundred, what do you find?

A. Between the 400 and 300 in the section of country between the word "Lazy" in "Lazy Jean" and "S" in Switchback there is a large flat ore body.

Q. Well, of how great an extent, how far would

(Testimony of William Clancy.)

the flattened condition exist?

A. The flattened condition exists over a section 130 feet in width and about approximately 200 feet long, something between 180 and 200 feet long.

Q. Now, after that flattened condition is shown in your intermediate, your 100, your 200, your 300 and 400, how is the dip of your vein after that is ended? [252—207]

A. What dip does it continue on into the earth after the 400?

Q. Through each one of these, after your flat condition is ended?

A. It generally assumes the normal or probably a little steeper dip for a short ways, and assumes its normal dip, averaging about thirty degrees in the center portion of the mine. These flattened conditions, I do not wish to convey the idea that they are connected in any way. They are separate, local conditions as found in the different places.

Q. Yes, sir, I understand, but you have described all of them now that exist as far as you know, have you, and that will be shown you find in the actual working by covering quite a vertical length of stope to reach a very small difference in elevation, is that right?

A. Yes, sir; there is another flattened condition appearing in raise 314 west where the stopes are shown in Plaintiff's Exhibit 2; I do not think I mentioned that before; it is simply another example of the same kind.

Q. Do those flattened conditions show any more or

(Testimony of William Clancy.)

appear any more in going down easterly from the northerly [253—208] and southerly apex than they do in going southerly onto the eastern and western apex? A. They do not.

Mr. DINES.—That is all.

Thereupon an adjournment was taken until 2:00 o'clock P. M. of this day, Tuesday, January 7th, 1913. [254—209]

Tuesday, January 7th, 1913, 2 o'clock P. M.

Mr. DINES.—The plaintiff now offers in evidence Exhibit No. 2.

Plaintiff's Exhibit No. 2 admitted in evidence without objection.

WILLIAM CLANCY, resumed the stand for further

Redirect Examination.

(By Mr. DINES.)

Q. Mr. Clancy, in speaking to you of the crosscuts that have been driven through the country from which it is shown whether or not the Stewart vein passes to the north of the line of the Osborn fault, I call your attention to the Fir tunnel as shown, a portion of it, on Exhibit No. 1, and ask you if you will please state to the Court the length of that tunnel from its mouth down to the workings.

A. From the mouth of the Fir tunnel to the point where the Stewart vein was first encountered, near survey point 2513, the length is approximately 2000 feet.

Q. Is the length of the tunnel shown on Exhibit 1, or does it extend on further?

(Testimony of William Clancy.)

A. It extends onward several hundred feet.
[255—210]

Q. What is the entire length of the tunnel beyond that portion of what is shown on Exhibit 1?

A. Approximately 17 or 18 hundred feet.

Q. And what is the entire length of that tunnel?

A. My recollection is that the Fir tunnel is about 2,600 feet in length from the portal to the point where it crosses the south side line of the Senator Stewart Fraction. That is roughly, and from memory, but it is approximately correct.

Q. You have already stated that what you have designated as the Osborn fault in your testimony is cut in this tunnel? A. It is.

Q. Now, what does that tunnel show with reference to the vein to the north and east on out to the mouth of the tunnel?

A. It shows no vein, no ore bearing vein in place in the tunnel from the portal to survey point 2513.

Q. And for these several hundred feet of length out there, is there any evidence of any vein at all?

A. For a distance of approximately three or four hundred feet in a northeasterly direction from survey [256—211] point 2513 there is no vein at all.

Q. Now, a question or two about the width of your vein. At these points where you have shown the apex of the vein, have you shown the width of the vein from wall to wall?

A. No, we have not. The apex, the heavy red line on the apex map represents the footwall of the vein, at its top, and it is shaded to represent the vein, but

(Testimony of William Clancy.)

does not purport to show the entire width of the vein on Exhibit 3.

Q. Then Exhibit 3 does not purport to show the width of the vein as it is in the ground? A. No.

Q. You have stated already the variable widths of that vein. Is there any point in it at or near its apex where the width is shown that you can point out?

A. Part of the width is shown from the Apex drift in a crosscut south from the Apex drift opposite survey point No. 2519 on Plaintiff's Exhibit 1; 30 feet of the vein in width is shown by that crosscut, but the entire width is not shown there.

Q. I call your attention to the exhibit marked "Section IV," looking west, scale one inch equals 30 feet— [257—212]

Mr. DINES.—I will ask the stenographer to mark this section Plaintiff's Exhibit No. 4.

Section 4 marked Plaintiff's Exhibit 4.

Q. Calling your attention to Exhibit 4, I ask you under whose direction and supervision this exhibit was prepared? A. Under my direction.

Q. From what data was it made?

A. From surveys and from maps made from surveys under my direction and by myself.

Q. From this data and these surveys that you have made yourself, are you able to state whether or not this exhibit correctly represents as a cross-section the matters that it purports upon its face to represent?

A. It does.

Q. What is indicated by the red line that I follow

(Testimony of William Clancy.)

with the pointer from the black line marked Osborn fault along its course to the southern termination of that broad line at or near the word "Ontario"?

A. The upper part of the red portion bounded by the red line which you have described represents the hanging-wall [258—213] of the vein from the point on its upward termination in the Osborn fault a short distance above the 100 foot level of the Stewart mine, downward through the stopes which are above the 200 foot level, downward to the 300 foot level, and on downward to the Ontario working.

Q. What is indicated by the black line marked "Osborn fault," which is shown at the easterly portion of Exhibit 4?

A. That represents the Osborn fault as it is seen upon the plane of this cross-section, and its relation to the workings in the Stewart mine near the 200 and 100 foot levels.

Q. What are the black lines on this exhibit that are marked solidly, four of them?

A. The black lines are claim lines, that is, as if the vertical plane were passed through each claim line; the line represents the intersection of the plane of the section with the plane of the claim line.

Q. And what line is the one furthest to the right of the exhibit or to the northeasterly part of the exhibit?

A. That represents the north side line of the Senator Stewart Fraction, that is, the intersection of a plane [259—214] passed downward through the earth, through the north side line of the Senator Stewart Fraction and the plane of the section.

(Testimony of William Clancy.)

Q. And the next line as I go from the line in question southwesterly?

A. That is the south side line of the Senator Stewart Fraction and the north side line of the Lazy Jean claim.

Q. And the next line as I proceed in a southwesterly direction?

A. The next line is the north side line of the Ontario mining claim.

Q. What is the last line in black that is shown here?

A. The south side line of the Ontario mining claim is shown near the red figures "IV" on Plaintiff's Exhibit 1.

Q. What is the waving line at the upper portion of Exhibit 4, which I follow with my pointer from the portion above marked in green "3400" and down below to 3100 at the right-hand side?

A. The black line which you have described represents surface lines, the line of the intersection of the plane of the section with the surface. [260—215]

Q. What do the green lines represent that extend throughout the exhibit from right to left?

A. The horizontal green lines which are marked upon Plaintiff's Exhibit No. 4 represent the intersection of the plane of the section with horizontal planes; that is, they are called elevation lines; they are supposed to be 100 feet apart.

Q. The figures on each side of the exhibit show what?

A. The figures on each side of the exhibit marked

(Testimony of William Clancy.)

in green represents the approximate elevation above sea level of each of the lines at the end of which these figures appear.

Q. And the figures and letters 400 level at the bottom of the exhibit with some black lines there, one of them long and the other two somewhat round, what do they represent?

A. They represent workings on the 400 foot level as cut by this section.

Q. Now, calling your attention to Exhibit 1, please indicate the line on Exhibit 1 through which the vertical plane which you have referred to is projected for the purposes of this cross-section? [261—216]

A. The line on Exhibit 1 through which the vertical plane cuts is marked in red in Roman numerals "IV" at the northeastern end of this line, and marked in Roman numerals in red "IV" at the southwestern end.

Q. Run your pointer along that line.

A. The line extending from the red letters "IV" at the northeastern end through the Senator Stewart Fraction claim as I indicate, southerly through the Lazy Jean and through the Ontario claim.

Q. And what objects would be shown upon a cross-section projected along through that line?

A. All objects which are in the ground on the plane of the section as well as the mine workings and the position of the vein as determined from the location in the mine workings.

Q. I note on Exhibit 4 the top point here of the red lying against the black line marked "Osborn Fault";

(Testimony of William Clancy.)

what does that show?

A. It shows the top of the vein as we find it on section IV above the 100 foot level near the eastern face of drift No. 105 east, on Plaintiff's Exhibit No. 1.

Q. And what does the lowest portion of the red lying [262—217] up against the black below that show upon Exhibit 4?

A. It shows the termination of the lower portion of the vein as shown by the working on the 200 foot level on Plaintiff's Exhibit 1 near survey point 112 near the bottom of the raise marked "Raise 216 East."

Q. And what does the solid red between those two points indicate?

A. It represents the vein as determined from the mine workings.

Q. Comparing the point that I first called attention to, that is, the upper point lying against the Osborn fault, with the red marked in the Ontario, please state what the difference in elevation is.

A. The difference in elevation is approximately 260 feet.

Q. What is the angle or declination from the same point, the uppermost point of this shown in Exhibit 4 down to the point immediately above the black line that I indicate here on the map, being a black line almost midway between the two longer black lines in the red on the same exhibit?

A. The inclination of the line which you have just described is approximately 35 degrees from the horizontal [263—218] downward.

(Testimony of William Clancy.)

Q. And what is the declination from that point to the black immediately next following down in the red?

A. The inclination of the upper red line from the point that you have just described, the easternmost extension of the workings shown in black above the word "300 Level" is approximately 20 degrees downward.

Q. And from that point to the point where it crosses the southerly side line of the Lazy Jean, what is the inclination?

Mr. GRAY.—Don't you think it would be just as fair to take the footwalls instead of the hanging-walls?

Mr. DINES.—Yes, I want to be just as fair as possible and I think the witness is trying to be perfectly fair.

Mr. GRAY.—Slip it down to the footwalls.

WITNESS.—I will take it in the middle.

Mr. GRAY.—Take the footwalls.

Mr. DINES.—Q. What would be the hanging-wall of the vein at that point?

A. The upper red line.

Q. And which would be the footwall?

A. The lower red line. [264—219]

Q. Take it first on the hanging-wall and next on the footwall, and then we will have them both.

Mr. DINES.—Is that satisfactory, Mr. Gray?

Mr. GRAY.—Certainly. I just noticed that it made some difference there.

Mr. DINES.—I don't think it would make a par-

(Testimony of William Clancy.)

ticle of difference but I am perfectly willing for him to take it any way that you want it. [265—220]

A. Approximately four degrees.

Q. For the hanging-wall?

A. For the hanging-wall downward.

Q. Now, the footwall, and if there are two courses there, you can take both?

A. To get myself right, we are beginning at the point in the eastern most end of the Black working above the 300 level?

Q. Yes, sir.

A. About two degrees. The lower line is shown which you are evidently trying to obtain is upward about four degrees.

Q. Take this up here which seems to be more upward than any other, take that, if you please, and let us have what it is on the footwall of the vein.

A. The footwall of the vein from the south side line of the Senator Stewart Fraction or the north side line of the Lazy Jean is upward five degrees.

Q. Now, if you can find any other places that it is upward pick them out and take that first on your footwall if you can, that is, an upward place, pick it out and let us see what it is. [266—221]

A. From an opening shown upon the cross-section in the Ontario claim approximately seventy feet south of the south side line of the Lazy Jean as shown upon the cross-section which is represented upon Plaintiff's Exhibit 1, by a drift near survey point 2567, the course of an inclination is upward at an angle of eight degrees for a distance of approxi-

(Testimony of William Clancy.)

mately seventy feet.

Q. Now, take the portion from there on down to the Ontario, the word "Ontario," and take it both on the hanging and on the footwall so we can have the angle of inclination of each.

A. From a point on the hanging-wall of the vein as shown upon Plaintiff's Exhibit 4, a point approximately 150 feet south of the north side line of the Ontario, the hanging-wall has an inclination downward of approximately fifteen degrees.

Q. And what is the footwall?

A. The footwall has an inclination downward of approximately I will say nineteen degrees.

Q. Now, what is your course from your Ontario workings to the apex as you have found it on this cross-section and [267—222] shown it?

A. It is upward.

Q. And from the apex to the Ontario workings what is the course? A. Downward.

Q. Now, please give the length in this cross-section of the vein from its highest point to the point where it begins to flatten out.

A. The length of the vein as shown upon this cross-section from its highest point to the point where it begins to flatten out is approximately 240 feet.

Q. Now, from that point to the point we will say the Ontario line, where it enters the Ontario claim, what is the length of the flattened portion—of that flattened portion? A. Approximately 360 feet.

Q. And from there to the lowest red of the word "Ontario" in the Ontario claim, what is the length?

(Testimony of William Clancy.)

A. 420 feet.

Q. What is the course of the Osborne fault as indicated there on this Exhibit 4?

A. The course of the Osborne fault is not indicated,— [268—223] that is, by course I presume you mean the direction on a horizontal plane?

Q. Yes, sir, that is correct.

A. I say, it is not indicated.

Q. It is not indicated; do you know what it is; can you give it?

A. It is north seventy-five and north eighty west.

Q. Now, if you please, Mr. Clancy, taking the inclinations that you have given of hanging-wall and footwall from the highest to the lowest portion of the vein, give us both walls and then the average dip. Can you calculate that?

A. Starting at the highest point and ending at its lowest point on each wall in a straight line?

Q. I will ask you to start at the highest point and go down to the flattest point where it becomes flat and make that one, give us that average dip, then from that point take the flat portion of the vein and give us the dip of both walls there; then take the dip of this portion of the vein, the lower portion of it, both the hanging-wall and footwall, and with those together give us an average dip of hanging-wall and the average dip of the footwall; [269—224] can you do that?

Mr. GRAY.—It is a repetition.

A. It is rather a long calculation to figure such a thing as that; I would have to take the distance or

(Testimony of William Clancy.)

each particular place; I can give you the average dip of the portions as shown upon the map and state them in terms of that kind very quickly, but to arrive at a correct average for the vein taking each section—

Q. (Interrupting.) I do not believe you have given me the dip of the footwall of the vein from its highest point against the Osborne fault down.

A. The average dip of the footwall from its highest point as it terminates against the Osborne fault to the point where the vein begins to flatten out near the 300 foot level of the Stewart mine is approximately 32 degrees.

Q. Well, if you take a line from the lowest point, a straight line from the lowest point to the highest point that the red shows on this exhibit—please do that and give me the inclination of that line.

A. The inclination of a line drawn between the point upon the hanging-wall in the working marked Ontario upon Plaintiff's Exhibit 4 and the highest point of the vein [270—225] as it terminates on its upward course against the Osborne fault on Plaintiff's Exhibit 4, we have an inclination of approximately twenty degrees.

Q. And now taking the same point on the footwall and bringing the line to the point on the footwall here where it shows against the Osborne fault, please give us that angle.

A. The inclination of a line joining the highest point on the footwall as it terminated against the Osborne fault a short distance above the 200 foot

(Testimony of William Clancy.)

level on Plaintiff's Exhibit 4 and joining the point, the working marked Ontario on Plaintiff's Exhibit 4, is about thirteen degrees.

Mr. DINES.—We offer Exhibit 4 in evidence, may it please your Honor.

The COURT.—If there is no objection, it will be admitted.

The said map was thereupon received in evidence and marked Plaintiff's Exhibit 4 admitted.

Mr. DINES.—Q. I show you an exhibit upon which is written "section I, looking west, scale one inch thirty feet," which I will have marked for identification as [271—226] Plaintiff's Exhibit 5, and ask you to please state to the Court what that exhibit is, under whose supervision or direction it was made and from what data it was made.

A. The map referred to, Plaintiff's Exhibit 5 is a cross-section through the lines which are marked upon Plaintiff's Exhibit 1 with red "I."

Q. Put your ruler right on it lengthwise along the face of the map.

A. (Continuing.) At its northernmost end, and a red "I" at its southernmost end, the southwesternmost end.

Q. On what exhibit?

A. On Plaintiff's Exhibit 1. That is also a cross-section fulfilling the conditions which I have described of the cross-section heretofore. The workings which are shown upon the map in black lines and marked with letters describing them are workings in the Stewart mine which were located by

(Testimony of William Clancy.)

surveys made by myself, and the red lines show the location of the vein as determined by the location of the workings in the ground which were made by me.

Q. Please state whether or not Exhibit 5 correctly represents the objects which it purports to represent on the cross-section as shown in that exhibit.
[272—227]

Q. Are there any projections outside of that plane on Exhibit 5?

A. There are no projections outside of the plane of the cross-section.

Q. Are there on Exhibit 4? I neglected to ask you about that. You can look at it hurriedly.

A. No, there are no projections outside of the plane of the cross-section, but I wish to explain that as not meaning between points, from other data—the vein is not projected because as shown upon the cross-section we have no working in some point directly on the plane of the cross-section, but from other data we know the location of the vein, and that would constitute a projection of another kind, but that is the vein just as it would appear upon this cross-section if there were workings there.

Q. And that applies to Exhibit 4, does it, as well as this? A. It does.

Q. Please state the extreme point, the highest point of the hanging-wall of the vein as shown on this section and give us the dip of that hanging-wall at all portions that it is shown, for instance, where you see a change, [273—228] take the first from here to here where there seems to be a change of direction,

(Testimony of William Clancy.)

then measure from there to the highest point there along the hanging-wall, then measure it from that point to the next point where there seems to be a change and in that way cover the entire vein down to the point, that is, where the black line is drawn marked No. 11 fault, and then the hanging-wall of the next portion of the vein here on down as far as it is shown in this exhibit, and take the footwall in the same way and give us those *declamations*.

A. Beginning at the highest point as shown upon Plaintiff's Exhibit 5 in the hanging-wall of the vein as shown, the hanging-wall descends for a distance of approximately 100 feet at an angle of forty-five degrees. For a distance of approximately 150 feet the hanging-wall of the vein ascends at an angle of approximately ten degrees, that is, from the end of the forty-five degrees inclination which I have just described. From that point the hanging-wall of the vein descends at an angle of approximately twenty-four degrees for a distance of approximately 110 feet. From that point the hanging-wall of the vein descends at an angle of two degrees for a distance of approximately [274—229] 110 feet. From that point the vein descends at an angle of approximately twenty-five degrees for a distance of 320 feet; and then the vein encounters fault marked No. 11 fault. The position of this fault is determined by its location in the Ontario workings and in the Stewart workings.

Q. Is that the fault which you have heretofore testified to in your examination in reference to Exhibit 1?

(Testimony of William Clancy.)

A. It is the fault which I testified to in reference to Exhibit 1 which separated the ore bodies known as the May and the Gray in the Ontario mine from that known as the Frank.

Q. Is that indicated at about the point that I point to with this pointer as to the green lines coming up in the shape of an inverted letter "V" on Exhibit 1?

A. That is the May drift to which you are pointing. The location of the No. 11 fault as shown upon Plaintiff's Exhibit 5 is on Plaintiff's Exhibit 1 between the southeast corner of the Senator Stewart claim and raise marked Frank No. 1. raise on the cross-section.

Q. Of Exhibit 1? A. Yes, sir. [275—230]

Q. Has that fault resulted in a displacement of a portion of that vein?

A. I wish to correct that testimony in answer to your previous question. I made a mistake on the cross-section line that I was looking at.

The COURT.—Yes, correct it.

A. The location of No. 11 fault as shown upon Plaintiff's Exhibit 5 is located on Plaintiff's Exhibit 1 between the drift on the 200 foot level marked drift 205 west near survey point 2062 and the 300 foot level as marked upon Plaintiff's Exhibit 1 near survey point 2113.

Q. Now, you can answer, after making that correction—answer the last question. Will you read it? (Question read.) At that point? A. It has.

Q. Have you been able to correlate the displaced portions of the vein and to measure the extent of

(Testimony of William Clancy.)

the throw at that point? A. We have.

Q. In what way?

A. On the 200 level of the Stewart mine on the plane of the cross-section which is shown in Plaintiff's Exhibit 5 [276—231] we have a working within thirty feet of the fault as shown upon Exhibit 5 and on the 300 level we have a working which shows the location of the fault on the plane of the cross-section 1 on Plaintiff's Exhibit 5 and in stopes immediately above this working we have the vein as shown upon the section. From that data we were able to plat the location of the fault and the location of the vein.

Q. Please measure the throw of the fault and tell us what the extent of the displacement or throw is.

A. (Continuing.) Which indicates a displacement of approximately 110 feet along the plane of the fault.

Q. How do you know it to be the same vein?

A. I know it to be the same vein as I have testified heretofore from Plaintiff's Exhibit 1 by ascending on mineable ore in the vein from the Frank ore body up through stopes and raises to the old lower Stewart tunnel level, thence following along the vein downward through the raise or stope to the 100 intermediate level and, referring to Plaintiff's Exhibit 2, through stopes on the 100 intermediate level on mineable ore down to the stopes above the 100 and 200 level, into the stopes above the 300 level of the Stewart mine, over to raise 314 west, down on the vein [277—232] to drift 305 west, of the Stewart

(Testimony of William Clancy.)

mine, along this drift to the stopes above the Gray ore body and down through these stopes to the Gray drift. [278—233]

Q. Taking a line from the lowest point of the hanging-wall to the highest point of the hanging-wall, please give the angle of inclination of Exhibit 5.

A. The angle of inclination of the line connecting the lowest point of the hanging-wall of the level of the Silver King tunnel of the Ontario mine with the highest point of the hanging-wall as shown on Plaintiff's Exhibit 5 is approximately 20 degrees.

Q. Take it from the lowest point of the footwall shown in Exhibit 5 to the highest point of the footwall on the same exhibit and give us the angle of the inclination of that line.

A. The angle of inclination of a line connecting the lowest point on the footwall with the highest point on the footwall shown on Plaintiff's Exhibit 5 is approximately 20 degrees.

Q. What is the total distance from the lowest point to the highest point of the vein as shown on Exhibit 5?

A. Approximately 1200 feet.

Q. Now, give us the difference in elevation between the lowest portion of the vein as shown on Exhibit 5 and the highest portion of the vein as shown on that exhibit. [279—234] A. 400 feet.

Mr. DINES.—Plaintiff offers in evidence Exhibit No. 5.

(Testimony of William Clancy.)

Plaintiff's Exhibit No. 5 admitted in evidence without objection.

Q. I show you a map marked "Section 11" looking west, scale one inch equals thirty feet, and ask you what that represents.

Section 11 marked Plaintiff's Exhibit 6.

A. The exhibit marked "Section 11" looking west scale one inch equals thirty feet is a cross-section fulfilling the conditions of cross-sections as I have described them and marked upon Plaintiff's Exhibit 1 with the red letters "11" at its northwestern end and "II" at its southeastern end.

Q. Under whose direction and supervision was that Exhibit No. 6 prepared and from what data?

A. It was prepared under my direction from surveys made by myself and purports to show the workings in the Stewart mine upon the plane of the cross-section as marked on Plaintiff's Exhibit 1.

Q. Please state whether Exhibit 6 correctly represents [280—235] on that cross-section the objects that it purports to represent. A. It does.

Q. Are there any projections outside of the plane of that vertical section on Exhibit 6?

A. There is a projection of five feet outside of the plane of the section onto the plane of the section of the raise which is shown at the top of the drift marked "Apex Drift" on Plaintiff's Exhibit 6. This raise is the top of raise No. 4 east as shown on Plaintiff's Exhibit 1. The cross-section does not go along the course of the raise; it begins at the top of the raise and passes out of the raise, and on this

(Testimony of William Clancy.)

cross-section it is shown as if it were in the raise.

Q. What is the purpose of showing that raise at that point in the cross-section?

A. The purpose of the cross-section is to show the position of the vein in the ground. The cross-section begins at the top of the raise—

Q. Why is the upraise projected in that particular way that I call your attention to there?

A. It is only five feet away, and we wished to show [281—236] the position of the vein, and the raise is in the cross-section at the top.

Q. Now, please give the entire distance from the lowest point on the hanging-wall of the vein as shown on Exhibit 6 to the highest portion of the hanging-wall as shown on the same exhibit.

A. The entire length of the hanging-wall?

Q. Yes, of the hanging-wall, the distance between those two points. A. Approximately 1000 feet.

Q. What is the angle of inclination between the lowest point of the hanging-wall shown on this exhibit and the highest point of the hanging-wall?

A. The angle of inclination of a line connecting the point on the hanging-wall which is the lowest point shown on Plaintiff's Exhibit 6 and the highest point of the hanging-wall shown on Plaintiff's Exhibit 6 is approximately 30 degrees.

Q. And what is the angle between the lowest point of the footwall and the highest point of the footwall shown on the same exhibit?

A. Approximately 35 degrees. [282—237]

Q. What is the difference in elevation between the

(Testimony of William Clancy.)

lower portion of the vein shown on this exhibit and the highest portion?

A. The difference in elevation from the lowest point of the vein as shown upon this exhibit and the highest point as shown upon this exhibit is 440 feet, approximately.

Q. What is the dip of the vein from its highest point as shown on this exhibit to the point where the vein rolls or flattens for a space?

A. The inclination of the vein as shown on this exhibit from the highest point to the point where this flattened condition is approximately—

Q. Take it first on the hanging-wall side.

A. Approximately 45 degrees.

Q. And what distance is that?

A. A distance of approximately 130 feet.

Q. Now, from there to the extreme of the flattened portion of the vein on the hanging-wall and on the footwalls too, give us the angle and distance.

A. The inclination is upward at an angle of approximately 5 degrees for a distance of approximately 100 feet. [283—238]

Q. Does the vein at the highest point there go to the surface or is there some wash immediately underneath the surface?

A. For a distance of ten feet along the inclination of the vein there is wash from the surface downward.

Q. Now, excluding the wash from the exhibit there shown, does that make any difference in those angles that you have given? A. No.

Q. Or with the elevation?

(Testimony of William Clancy.)

A. No, the vein would end; the surface wash would fill up the last ten feet of the fissure as shown here, instead of showing the fissure upon the outside, in the air.

Q. Measure from the point that you have last given on a horizontal at the termination of the flat portion of the vein, down to the extreme and give us the angle of inclination and the distance.

A. A line joining the point on the hanging-wall at its lowest point as shown on Plaintiff's Exhibit No. 6 and the highest point in the vein above the workings shown near the letter "L" in the words "Lower Stewart Tunnel," the [284—239] angle of inclination on that line is approximately 30 degrees, and the distance is approximately 750 feet.

Q. What are the lines spaced in black, marked "Osborn Fault," what do they indicate?

A. They indicate the intersection of the Osborn fault with the plane of the section as nearly as can be determined from the workings that we have in the mine.

Mr. DINES.—We offer Exhibit 5 in evidence.

Plaintiff's Exhibit No. 6 admitted in evidence without objection.

Q. Here are some other sections that have come in since. I show you an exhibit to be marked for identification Plaintiff's Exhibit 7 on which is written "Section III" looking west, scale one inch equals thirty feet, and I will ask you under whose direction and supervision that was prepared and from what data.

(Testimony of William Clancy.)

A. It was prepared under my direction and supervision from surveys made by myself, and purports to show the workings in the Stewart mine and the location of the vein is shown in red and the position is determined from the location of the workings.

Q. State whether that exhibit correctly represents the [285—240] matters and objects that it purports to represent upon its face. A. It does.

Q. The red on Exhibit 7 indicate, as on the other exhibits, the position of the vein in that cross-section? A. Yes, sir.

Q. Please indicate on Exhibit 1 the line along which the vertical plane is projected from which this cross-section is made; lay your ruler along it.

A. The line along which Plaintiff's Exhibit 7, the vertical plane is passed, is in the position which I indicate by my ruler, marked with the Roman numerals "III" at its northern and southern end.

Q. Please give us the difference in elevation between the most northerly portion of the hanging-wall of the vein as shown on Exhibit 7 and the lowest position of the hanging-wall as shown on the same exhibit. A. 410 feet.

Q. What is the angle of inclination of the hanging-wall of the vein measured on a straight line between the points that it is shown lowest on the exhibit and the point of its termination highest on the exhibit? [286—241]

A. The inclination of a straight line connecting the point of the hanging-wall which is shown highest on Plaintiff's Exhibit 7 and the point on the hanging-

(Testimony of William Clancy.)

wall which is shown lowest on Plaintiff's Exhibit 7 is approximately 35 degrees.

Q. And from the lowest point of the footwall to the highest point of the footwall as shown on the same section?

A. My answer to the previous question should have been 25 degrees instead of 35 degrees, and the inclination of a straight line connecting the lowest point of the footwall with the highest point of the footwall is also approximately 25 degrees.

Q. What is the distance between the lowest and the highest portions of the vein as shown on Exhibit 7?

A. Approximately 1080 feet.

Q. What is the angle of inclination of the hanging-wall as it starts from its highest point until it comes to the bend where there is a change in direction?

A. The angle of inclination of the hanging-wall from its highest point is downward at an angle of 12 degrees for a distance of approximately 50 feet.

Q. And from that point down to the portion here where [287—242] there is another change of direction what is the inclination?

A. The inclination downward from the point which I just described is approximately 40 degrees for a distance of 120 feet.

Q. Take the next section where there seems to be another change from the same point, where there are two changes really, and you can give us both of them. It goes up for a distance and then down again?

A. From the point which I have just described the

(Testimony of William Clancy.)

angle of inclination of the hanging-wall is upward at an angle of 15 degrees for a distance of approximately 50 feet, then for a distance of approximately forty feet it is practically horizontal.

Q. And from that point on to the next, taking the hanging-wall?

A. Then it turns downward at an angle of approximately 55 degrees for a distance of 40 feet and from that point the inclination downward of the hanging-wall is approximately 15 degrees for a distance of 250 feet, and from that point the angle of inclination of the hanging-wall is downward approximately 35 degrees for something over 400 feet—approximately 400 feet. [288—243]

Q. I call your attention to some workings that are shown here on the right hand portion of this exhibit as we are facing it, and ask you what those are.

A. The workings marked in black north of the workings which are shown near the red band upon Exhibit 7 are the workings which are shown along the section line marked in red "III" at the northerly end and "III" at the southerly end, and are shown crossing this line in Plaintiff's Exhibit No. 1, marked "Old Lower Stewart Tunnel," "Deering Crosscut" and another working marked "Drift No. 2 East" near survey point 9536.

Q. I will ask you if those workings have anything to do with this vein.

A. They have nothing, as far as I know.

(Testimony of William Clancy.)

Mr. DINES.—We offer Plaintiff's Exhibit No. 7 in evidence.

Plaintiff's Exhibit No. 7 admitted in evidence without objection.

Q. Now, take your next exhibit. I show you a map marked "Section VI" looking west, scale one inch equals thirty feet, which will be identified as Plaintiff's Exhibit No. 8, and ask you under whose supervision and direction [289—244] this exhibit was prepared and from what data.

A. It was prepared under my supervision from data obtained from surveys made in the Stewart mine by myself.

Q. State whether or not Exhibit 8 correctly represents the object that it purports to represent in the plane of that section as shown on its face.

A. It does.

Q. Please designate on Exhibit No. 1 the line through which this vertical plane of this section is projected.

A. The line on which the vertical plane of section VI, Plaintiff's Exhibit No. 8, is projected is marked on Plaintiff's Exhibit 1 by red letters "VI" at its northeastern end and the red letters "VI" at its southwestern end.

Q. How is the vein indicated on this Exhibit 8?

A. It is marked in red.

Q. Please give us the total distance of the vein as shown from its southern portion, the lowest portion, to its highest portion in the plane of this section.

A. Approximately 1050 feet.

(Testimony of William Clancy.)

Q. Please give us the difference in elevation of the lowest and highest point of the hanging-wall.

A. The difference in elevation between the highest [290—245] portion of the hanging-wall and the lowest portion is approximately 200 feet.

Q. Please give us the difference in elevation between the lowest point of the footwall and the highest point in the footwall in the plane of this section.

A. The difference in elevation between the lowest point of the footwall and the highest point of the footwall as shown on this section is approximately 145 feet.

Q. Please give us the angle of inclination of a straight line drawn from the lowest point of the hanging-wall to the highest point of the hanging-wall in this exhibit.

A. The angle of inclination of a line drawn between the lowest point of the hanging-wall and the highest point of the hanging-wall on this exhibit is downward at an angle of approximately 10 degrees.

Q. And the inclination of a straight line drawn between the lowest point of the footwall and the highest point of the footwall on this exhibit?

A. The angle of inclination of a line connecting the lowest point and the highest point of the footwall as shown upon this exhibit is approximately 6 degrees. [291—246]

Mr. DINES.—We offer in evidence Plaintiff's Exhibit No. 8.

Plaintiff's Exhibit No. 8 admitted in evidence without objection.

(Testimony of William Clancy.)

Q. I show you an exhibit upon which is printed "Section V" looking west, scale one inch equals 30 feet, which is to be identified as Plaintiff's Exhibit No. 9, and ask you under whose supervision and direction this exhibit was prepared and from what data.

A. It was prepared under my supervision from data obtained from surveys which I made in the Stewart mine, purporting to show the workings in the Stewart mine which appear upon the plane of this section, and also the vein as located by the position of the workings.

Q. Does this Exhibit 9 correctly represent the position of the object that it purports to represent in the plane of this section? A. It does.

Q. I note on this Exhibit 9 a black line marked "No. 11 Fault." Is that the same fault that you have identified on Exhibit No. 5?

A. Yes, it is the same fault. [292—247]

Q. Please give us the difference in elevation on this exhibit between the lowest portion of the vein as shown on the exhibit and the highest portion.

A. Approximately 385 feet.

Q. What is the difference in elevation between the portion of the vein, of the hanging-wall of the vein as it goes against fault No. 11 and the highest point of the hanging-wall in the same vein?

A. Approximately 235 feet is the difference in elevation between the highest point of the hanging-wall as shown upon Plaintiff's Exhibit No. 9 and the lowest point of the hanging-wall as shown term-

(Testimony of William Clancy.)

inating on its downward course against No. 11 fault.

Q. What is the angle of inclination of a straight line drawn between the lowest point on the hanging-wall of the vein at the fault and the highest point of the hanging-wall of the vein as shown on the exhibit?

A. The angle of inclination of a line joining the highest point of the hanging-wall of the vein as shown on Plaintiff's Exhibit 9 and the point where the hanging-wall of the vein is shown underneath No. 11 fault is approximately 20 degrees. [293—248]

Q. And from the lowest point of the footwall and the highest point of the footwall, from the point of the footwall against No. 11 fault and the highest point against the Osborn fault, what is the angle?

A. Approximately 15 degrees.

Q. What is the extent of the displacement of the vein in that fault?

A. The extent of the displacement of the vein by that fault in the plane of cross-section V as shown by the cross-section is approximately 130 feet.

Q. Are you able to correlate these two portions of the vein separated by the fault in question in that place in any way, if so, how?

Mr. GRAY.—I object; that has already been answered two or three times across the No. 11 fault. I don't think it is necessary to repeat it.

Mr. DINES.—All right, if counsel is willing to stipulate that it would be the same evidence in reference to the same fault—

(Testimony of William Clancy.)

Mr. GRAY.—Well, he has testified to it two or three times, and traced it up to the old Stewart tunnel level and back down again and around. [294—249]

Mr. DINES.—Very well.

Q. Now, measuring the other portion of the vein in this Exhibit No. 9 on the other side of the fault, please give us the length of that section of the vein.

A. The length of the section of the vein above No. 11 fault as shown on the cross-section V is approximately 300 feet.

Q. Give us the angle of inclination from the lowest point of the hanging-wall on that section and the highest point.

A. The angle of inclination of a straight line connecting the lowest point of the hanging-wall as shown near the working marked "Ontario" and the point the hanging-wall is shown on the upper side of No. 11 fault is approximately 12 degrees.

Q. And from the lowest point of the footwall to the highest point of the footwall on that section of the vein?

A. The angle of inclination from the lowest point to the highest point as heretofore described is upward approximately at an angle of 10 degrees.

Q. Give us the angle of inclination and the distance along the hanging-wall of the first portion of the vein, the higher portion of it, to the point where there is a [295—250] change in the angle of the inclination.

A. The angle of inclination of the portion of the

(Testimony of William Clancy.)

vein descending from the highest point of the hanging-wall as shown upon section V is approximately 40 degrees for an approximate distance of 250 feet.

Q. And measure the next angle of inclination along the hanging-wall and give us the distance measured by that change.

A. The angle of inclination of the hanging-wall of the next section of the vein is approximately 6 degrees upward for a distance of about 80 feet.

Q. How is the footwall of that same section?

A. In the same section the footwall has an inclination downward of approximately 10 degrees for a distance of 170 feet.

Q. Now take the next section of the vein shown there and give us as well as you can the angle of the inclination of the hanging-wall.

A. A straight line joining the point where the hanging-wall of the vein is shown on section V at the intersection of the south side line of the Senator Stewart Fraction and the point where the hanging-wall is shown [296—251] against the under side of No. 11 fault, the inclination is downward at approximately 7 degrees.

Q. And the footwall of the same section of the vein?

A. The footwall of the same section of the vein heretofore described the angle is downward at an angle of approximately 3 degrees. The distance is approximately 380 feet.

Mr. DINES.—We offer Plaintiff's Exhibit No. 9 in evidence.

(Testimony of William Clancy.)

Plaintiff's Exhibit No. 9 admitted in evidence without objection. [297—252]

Mr. DINES.—Take the witness.

Thereupon a short recess was taken.

Recross-examination.

(By Mr. GRAY.)

Q. What is the dip of the Clancy fault?

A. At the point marked "W" on Plaintiff's Exhibit 1 at the top of the raise two west, the dip is approximately thirty degrees in a northwesterly direction.

Q. Dipping about like that, in that direction (indicating)? A. Northwesterly, yes, sir.

Q. What is the course of the dip there; you say northwesterly. Give me the strike of it and it is easy enough to figure it; *what the* strike of the Clancy fault?

A. Approximately north 30 east.

Q. And the inclination is thirty degrees?

A. Northwesterly, yes, sir.

Q. In this 85 level, does that show all of the workings from that level?

A. It shows all of the workings at the elevation at which it is marked. There is a raise, a vertical raise in [298—253] the end of the 85 foot level, in the southeastern end as shown upon the map, extends upwards fifty feet vertically.

Q. That is not shown on here at all. Now, in your No. 7 cut that shows all of the workings there?

A. That shows the total extent of No. 7 cut.

(Testimony of William Clancy.)

Q. Those workings that you have called to my attention, the 85 level and the No. 7 cut, are the only workings which have been put in there for the purpose of developing that fault or the vein on the upper side of the fault?

A. I do not wish to be misunderstood as to the 85 level; that level was given before I arrived at the Stewart mine. The No. 7 cut was driven for the purpose of finding the vein beyond the Clancy fault. We drove the No. 7 cut to its present extent, and seeing it opposite the 85 level, then the country had already been crosscut there was no use looking for it in there, so we did not extend it any further.

Q. Those are the only workings, however, driven for the purpose of developing that vein above the fault?

A. They are, because the surface was near on the other side.

Q. What is the elevation of the top of this raise [299—254] at the point "W" where you have developed the Clancy fault?

A. The topmost portion of the raise is approximately 2932. I beg your pardon; I meant 3032; the elevation of the bottom of the raise is 2919, and the raise is up 110 feet.

Q. What are the little crosscuts or drifts north and south from the 85 level?

A. Those are drifts driven upon a fault seam, a gouge seam.

Q. Have you been in and surveyed that working yourself?

(Testimony of William Clancy.)

A. I have surveyed it with a compass and tape; I have made no instrument survey of it, if you wish to make the distinction between them.

Q. No, I do not. That is called the level; is that driven on anything?

A. The workings along which the words "85 foot level" appear is a crosscut driven from a raise which is marked Samuels raise.

Q. What do you call it a level for?

A. Well, it is a horizontal working, and all those horizontal workings, if they are of any extent, they call them levels; those names appeared upon the maps at the time [300—255] I came here and we just carried the names on.

Q. I thought they called them crosscuts when they are run along the vein.

A. Take, for instance, the old lower Stewart tunnel level, or any other workings on that horizontal plane, the approximate horizontal plane are called the levels.

Q. Part of it was called the Deering crosscut?

A. It is; that is a crosscut through the country, crosscutting the country, not drifting on the vein.

Q. I am not arguing with you; I was just wondering why you called that a level.

A. Take stopes or a crosscut and a drift, I presume, you would call that a level, it is rather technical, though, just what it would be.

Q. Now, the fact is in that part of the mine there has really been less development work than almost any place else in the property, isn't that true, in be-

(Testimony of William Clancy.)

tween your upper Stewart ore bodies and the lower ore bodies below the Clancy fault?

A. There is nothing to develop in there.

Q. I say there has been less development there than practically any place else upon the property, isn't that true, just a couple of workings put in for the purpose of [301—256] developing the fault?

A. You have a section of country which you are describing approximately 400 feet long by something over 200 feet wide, and it is crosscut completely, it is completely developed.

Q. Where is the vein 80 feet wide? You said something about the vein being eighty feet wide; I wish you would show the Court.

A. As we have determined the location or the limits of the ore body on the 400 level as near as we have been able to determine them, near the drift 415 W. the vein is over eighty feet in width, and in the stopes above the drift 4 east we have the actual workings on commercial ore of fifty feet in width, and from a waste raise which we have driven into the hanging-wall, we know the mineralization extends beyond that, so therefore we know that in some places the vein has a width of eighty feet or greater.

Q. Limiting the width of the vein to the mineralization?

A. To the definite mineralization as we could find it.

Q. Do you mean to the limit of the commercial ore or to the limit of the mineralization?

A. No. [302—257]

(Testimony of William Clancy.)

Q. All right. Now, just tell me what you do mean.

A. I am extending it just as a man would extend the limits of his wheat field; if we should see wheat growing in there so we could distinguish it, for instance, we run a crosscut on the vein and in the hanging-wall of the drift we have a pay streak of five feet of first class ore and that gradually diminishes until pure country rock is found, then as soon as we reach that, until we cannot find any mineralization, that is the limit of the vein.

Q. As soon as you get to the point where you cannot find any silver or lead, that you consider the limit of your vein?

A. We consider that the limit of our vein when we cannot find any more silver or lead.

Q. And in giving the width, that is what you intended to imply as the limit of this vein on the hanging-wall side?

A. Well, on both sides that is the limit of our vein. We do not mean to say that the shipping ore is the limit of the vein; we mean to say as I have described the limit.

Q. You say in the upper workings above the tunnel level that the vein is fifty feet wide on commercial ore?

A. In the stopes; there was stopes shown fifty feet [303—258] wide.

Q. The stopes themselves are fifty feet wide?

A. On a horizontal plane the stopes are fifty feet wide, yes, sir.

(Testimony of William Clancy.)

Q. That would not be at right angles?

A. I know what you mean; the vein is not fifty feet wide in commercial ore.

Q. What stopes are those which are fifty feet wide; just show me, lay your ruler where you say they are?

A. There is a floor of stopes shown to be fifty feet wide next to the last floor as shown underneath drift marked Apex drift.

Q. You have referred to the number 11 fault. Where are the other ten?

A. Because there is a fault known as No. 11 is no reason why there are ten others or any other number; that is an arbitrary name that is given it.

Q. I know, but you have at some time given some other faults that you found in there, numbers 1 to 10 inclusive, haven't you? A. No, sir.

Q. Never have? [304—259]

A. You mean that there are faults numbered from one to ten and each one represents a fault, each number represents a fault?

Q. I am asking you if you have any other faults that you have given numbers to in that property?

A. Yes, sir.

Q. Where are they?

A. The fault which has been heretofore referred to as the Clancy fault was given the name No. 1 fault; the fault plane which causes the fold but does not separate the vein through the working marked upon Plaintiff's Exhibit 1 as east No. 3 crosscut, was given the number of No. 5.

Q. That is the one you have referred to as folding

(Testimony of William Clancy.)

the vein and making it flat just below the Stewart tunnel level as shown on here?

A. Well, that is not accurate to say it is just below the Stewart tunnel level, because the—

Q. On that level and just below?

A. It is on the level in the eastern portion between drift No. 5 west and drift 4 east, and it is below the level on the 104 intermediate; it causes a flattening of the vein there or a folding of the vein, but not a separation. [305—260]

Q. Where else?

A. There is another fault that has a similar action, does not separate the ore body, a minor fault, called No. 10.

Q. Where is that?

A. On the 300 level. It has a position approximately as I have placed my pointer, extending from near survey point 2050 to two and along a working shown from survey point 2045 to 2013, as I have indicated with my pointer.

Q. Do you find that on the 400 level too?

A. I have never seen it to accurately and certainly identify it on the 400 level.

Q. It lines up, does it, with the one between—what is this, the Gray and the May? A. No, sir.

Q. All right. You have seen it you think out on the 400 level some place?

A. In the south crosscut on the Fir tunnel on the 400 level near the place which is marked R-400 K, a short distance south of that there is a fault claim with some gouge on it, and that may be the No. 10

(Testimony of William Clancy.)

fault, but I am not sure of that because in the stopes above where it should appear it does not appear.

[306—261]

Q. Now, where are the others?

A. If I have got to stop and name all the little faults in this mine I have a big job before me.

Q. No, just the others that you gave numbers to. Where is No. 2?

A. I have not any number two.

Q. How did you happen to jump that number?

A. I thought I would leave room between for a few more.

Q. We have No. 1 and No. 5; did you have No. 3 or No. 4 any place?

A. No, sir, I do not think we have any No. 3 or No. 4.

Q. All right. No. 6? A. No.

Q. Or 7? A. No.

Q. Or 8? A. No.

Q. Or 9? A. No.

Q. You left quite a few numbers in between?

A. I expected to find a few more in between.

Q. Yes, sir; as I understand you now, what you have [307—262] spoken of as the fold in the vein, the vein on its downward course southeasterly is rendered flat and folded somewhat by a fault which runs—what is the course of that fault, first, approximately?

A. The approximate position of the fault as near as I have been able to determine it from all the work-

(Testimony of William Clancy.)

ings which I have seen lays on the 104 intermediate level in the position which I will mark with the blue line; that is, the approximate position—

Q. What is its course?

A. The approximate course is north 5 east, is my recollection of the fault on the—

Q. Almost north and south?

A. Almost north and south; and from the working drift No. 5 west and in the stopes above drift 5 west and drift No. 5 east and in the east No. 3 crosscut the position of the fault placed along the blue line is its approximate position as near as I have been able to trace it, something like that (indicating).

Q. A general course—

A. It is another crescent.

Q. It is another crescent, yes, sir. [308—263]

A. It starts out pretty near north and south and I followed it up in the stopes and I found it, found it in the east No. 3 crosscut, we found a fault which corresponds and that is the position that I would place it in.

Q. And it dips to the west at what angle?

A. Various angles, from 20 to 30 or 35 degrees.

Q. That fault causes the vein on its downward course from its western apex to flatten out for a distance there, doesn't it? A. It does.

Q. Those blue lines you have marked on there, suppose you mark those at the ends No. 5, then we will know. That is on Exhibit No. 1?

A. (Witness marked map.) I marked "tunnel

(Testimony of William Clancy.)

level" on that—No. 5 fault, tunnel level, to designate the position.

Mr. GRAY.—Mark this for identification.

The said map was thereupon marked Defendants' Exhibit "A" for identification.

Q. This Exhibit "A" for identification is a copy of the map which you made and attached to your affidavit in this case, isn't it? [309—264]

A. Yes, sir.

Q. Would you indicate on there where your apex is disclosed in the so-called Apex drift. I would like to have you plat that on there, if you could.

Mr. DINES.—Was the Apex drift driven at the time that blue-print was made?

Mr. GRAY.—No, sir. He can put it on there just the same, though.

The WITNESS.—You wish to have the point where the apex is shown in the Apex drift?

Mr. GRAY.—Q. Yes, sir.

A. (Witness marked on Defendants' Exhibit "A.")

Q. That is the point W-prime, isn't it?

A. Yes, sir.

Q. Now, give us the other two points, W2-prime and the point where it is shown up in the—

A. (Witness marked Defendants' Exhibit "A.")

Mr. DINES.—What is the scale of the blue-print?

Mr. GRAY.—100 feet to the inch.

Q. The cross-section 1, Roman I, Mr. Clancy, will you lay this straight edge upon the stope map so as

(Testimony of William Clancy.)

to show where that runs through the stopes? [310—265]

A. That is approximately the position of the cross-section on the stope map.

Q. Just run it down through those stopes in the Frank ore body.

A. (Witness illustrated.)

Mr. GRAY.—Can your Honor see that?

The COURT.—Yes.

Mr. GRAY.—Q. That cross-section is so laid that it enters the Frank ore body in one of the upper stopes extending diagonally through the stopes in a southwesterly direction, doesn't it? A. Yes.

Q. What is the course of that cross-section 1?

A. The direction—

Q. Yes, sir.

A. (Continuing.) —of cross-section 1 as shown upon Plaintiff's Exhibit 1 is approximately south 12 degrees west.

Q. The strike of the vein of the Frank ore body, of the vein in the Frank level and in the stopes was what?

A. I think I have stated south forty west; that is very close.

Q. A little less than that? [311—266]

A. South 39 west.

Q. Somewhere along there. And its inclination was what; what did you say?

A. I have forgotten the exact dip. I think probably 55 degrees, probably 60 degrees; it is very steep

(Testimony of William Clancy.)

there; I have forgotten just what I did give this morning.

Q. Now, the Roman five—just lay the straight edge for that across your stope map.

A. Cross-section No. 5 is parallel to the east end line of the Senator Stewart Fraction and is shown on the stope map in the direction of the straight edge.

Q. That enters some of the upper stopes and diagonally extends through to the level, doesn't it?

A. It does.

Q. What is the course of that section?

A. Section 5?

Q. Yes, sir.

A. It is parallel to the east end line of the Senator Stewart Fraction; it is south 24 degrees west.

Q. Yes, sir. The reason the cross-section five shows a downward inclination on the Frank ore body is because the plane of the section is so laid as to extend [312—267] diagonally through that ore body entering the higher stopes and going down through them on a diagonal line until it cuts the floor of the Frank drift.

A. You speak of diagonally; do you mean making an angle with the true strike?

Q. Yes, sir.

A. It does make an angle with the strike.

Q. With the strike of the vein? A. Yes, sir.

Q. The course of sections six, four and five are all parallel with the east end line of the Senator Stewart Fraction? A. Absolutely.

Q. The course of section two is what?

(Testimony of William Clancy.)

A. Approximately south 63 degrees east.

Q. The course of section 3 is what?

A. The course of section 3 is south 1 degree east.

Q. Almost north and south?

A. Almost north and south.

Q. An infinite number of cross-sections could be prepared commencing at a point, say, where this red apex, so called, passes through the east end line of the Senator [313—268] Stewart Fraction claim, could be extended at almost any angle in a southerly or southeasterly direction, could they not, *and* almost infinite number of cross-sections?

A. Construing that question like you, you can make an infinite number of cross-sections of a piece of ground, yes, sir.

Q. Yes, sir, and each of those cross-sections, if made from different points, would show a different inclination upon the plane of the section, wouldn't they? A. Show a different inclination?

Q. A different inclination of the vein, wouldn't they? *East* cross-section would show a different inclination?

A. An infinite number of cross-sections drawn in an infinite number of directions would show a different inclination of the vein?

Q. Yes, sir.

A. Broadly, I think your answer is yes to that question.

Q. And your inclination which you give to the vein would depend entirely upon the point which you took for the beginning and the ending of your cross-sec-

(Testimony of William Clancy.)

tion, the two points, wouldn't it? [314—269]

A. The plane of the section, the inclination of the vein?

Q. As shown upon the plane of that section?

A. As shown upon the plane of the section would depend in this particular case whether they were taken parallel to the end line or otherwise.

Q. Depend upon where you took the section; isn't that true?

A. I don't know what you—you get me a little bit too far into the infinite for me to quite follow you.

Q. All right. You could take a section which would show an inclination of the vein, an apparent inclination of the vein downward as you have upon these sections which would show even a greater inclination downward than any of the sections which you have prepared; isn't that true?

A. I don't think so. I think my recollection is that I tried several cross-sections and found that section 2 marked with the two I's in red at the top and bottom, or the north and south of the section, was the section which shows the greatest inclination. For a short distance you might find a section which would show a greater inclination.

Q. How about a section which would be drawn approximately [315—270] parallel along the south side line of the Senator Stewart Fraction?

A. That would only show an inclination of approximately thirty degrees from the tunnel level, old lower Stewart tunnel level, down; there are flat places along there (indicating).

(Testimony of William Clancy.)

Q. Yes, sir. Well, from the point "W," how about it?

A. It would show probably a little more than thirty degrees, but my recollection is that section along that line would not show as *a* great an inclination as section 2.

Q. From up here at the point (indicating)?

A. From the apex.

Q. From the Apex drift here, this raise?

A. From the apex as shown in the raise 4 east.

Q. Yes, sir. Now, assuming that you had an apex represented by the top of this map and that a claim was laid upon that vein as this—the side line of which, a plane representing the side line would pass along vertically the side of the map, you could get a downward inclination on that vein from any point on the side of that claim?

A. Not parallel to the end line you could not.

Q. Just read the question. (Question read.) From any [316—271] point on that plane, couldn't you? A. Yes, sir.

Q. Yes, sir; to some part of the vein. It would not make any difference how far down along the line you went to begin your section?

A. You get a downward inclination in some direction.

Q. The sections 1, 2, and 3, of course, are not parallel to the end line of the Senator Stewart Fraction?

A. No, they are not.

Q. You say you tried to make several other cross-sections—or several other sections along the vein

(Testimony of William Clancy.)

which would show the vein on its downward course, didn't you?

Mr. DINES.—I do not think the witness stated that.

The WITNESS.—I said that I tried several other sections which would show a greater dip.

Mr. GRAY.—Yes, sir.

A. And concluded to use section 2 as showing the greatest extent in dip or inclination. The word "dip" is not accurate.

Q. No, I understand that it is not. There was one of those sections that showed the Clancy fault; which one was that? Where is the Clancy fault shown on that? [317—272]

Mr. DINES.—I would thank you, Mr. Gray, as those are designated as plaintiff's exhibits, if you will kindly refer to them as such.

Mr. GRAY.—Exhibit 7?

A. The Plaintiff's Exhibit 7, the Clancy fault, is at the upward termination of the vein, as shown by the top of the red—it is not shown here, but it is in the position as indicated by the working outlined in black near the letter "S" in the word "Senator" of Senator Stewart Fraction.

Q. The termination of your red vein here at the top upon that section is supposed to show the termination of the vein against that fault, isn't it?

A. The fault is marked there in lead pencil and has not been marked in blue as it should have been marked. It would appear as a line upon this section.

Q. I thought that vein dipped to the west?

(Testimony of William Clancy.)

A. It would, that is true.

Q. Then, it is not accurate so far as that is concerned?

A. The fault would appear—the fault cuts the vein off just as shown in this working; the vein stopped just as it is shown there.

Q. Didn't it stop in that way (indicating)?
[318—273]

A. The fault does not dip into the plane of the section, but it would show a distorted dip if the fault was projected on it.

Q. How far would it have to dip in order to get out onto the section—five feet?

A. No; the fault extends at an angle of approximately forty degrees with the plane of the section, so it would show a distorted dip if placed upon it. The accurate way to show that would be to place some blue there so as to show the top of the vein was against the fault.

Q. You show a flattening here on this Exhibit 7 between 104 intermediate and what I presume is the Stewart?

A. That is as it appears upon this section?

Q. Yes, sir. It would indicate that the vein was somewhat flat in here. As a matter of fact, the dip of the vein at that place is very steep, isn't it?

A. That is simply due to the way of the change of the strike in the vein at that particular point.

Q. Yes, sir; the vein is very steep in its upward course away from—

A. At this particular section?

(Testimony of William Clancy.)

Q. Yes, sir; what is the dip of the vein in there?
[319—274]

A. Referring to Plaintiff's Exhibit 1, section marked with red three I, at its northern extremity, and III at its southern extremity, the plane of the section is shown intersecting the old lower Stewart tunnel level near survey point 9516. The tunnel level, the old lower Stewart tunnel level, extends almost parallel to the line of the section for a distance of slightly over 100 feet, probably 120 feet, which explains the condition as found upon the section.

Q. That really represents practically the true course of the vein in there?

A. The section at that particular point which I have just described is parallel to the course of the vein for that specific distance.

Q. Yes, sir. Now, of course, you do not intend to say to the Court by these sections which you have prepared that the vein is disclosed and is shown as you have painted it in red upon the sections?

A. I mean if you went downward upon the section just as it is shown, if an opening could be made through the earth, a vertical opening, you would find the vein as it is shown upon the section. [320—275]

Q. Yes, sir, but no such openings have ever been made except those which you have depicted upon the section?

A. The openings which were on the plane of the section are depicted upon the section, and openings near by show the location of the vein and from that we placed the vein upon the section.

(Testimony of William Clancy.)

Q. Projected it upon the section in the places between the actual openings which you have shown upon the sections; that is true?

A. We have placed the vein from the position shown from other openings projected upon the section.

Q. Will you explain to the Court why you have not prepared any sections except—the one section II-II is not, but all of the other sections that you have prepared extend to the ore bodies in the Ontario which have actually been opened up by the defendants, do they not?

Mr. DINES.—I object to that question; it assumes something that is not shown—but I have no objection to the witness answering.

Mr. GRAY.—It is shown.

Mr. DINES.—It is not, but on the contrary, it is true; I will inform the counsel, that we will give you enough [321—276] cross-sections before you are through with this, we think, to satisfy you. We have other models coming to show you—

Mr. GRAY.—I hope it won't take you as long to introduce them as it did these.

Mr. DINES.—We will try to satisfy you. I do not want you to be misled to think we do not have any other cross-sections; we have them plentiful in every way that you could ask.

Mr. GRAY.—Read the question. (Question read.) All of the sections except II-II extend over?

A. The reason the cross-sections are shown as they are, especially cross-section 5, 4 and 6, was upon ad-

(Testimony of William Clancy.)

vice of counsel who informed us that our sections should all be made parallel to the end line, that that controlled our rights in the matter, and other sections are immaterial, and he wanted more sections than we have parallel to the end line, and for that reason we made our section parallel to the end line.

Q. Those three were prepared on advice of counsel. On whose advice were one and three prepared?

A. One and three were prepared to show—

Q. First, on whose advice; was that your own, independent? [322—277]

A. The one, two and three were prepared by myself principally. I asked advice from other men who will be witnesses in the case, but those are preliminary sections, that the sections which were prepared parallel to the end line, and we had one section parallel to the end line which is shown by the preliminary hearing, which corresponds to section 6, it was described in the preliminary hearing, I believe section BB.

Q. You have not prepared any sections, which would show the vein from the apex—your western apex—have you? [323—278]

Q. Now, you haven't prepared any sections, have you, that show the vein in your western apex?

A. If you refer to the western apex, we have section III through the point furthest west; but if you mean parallel to the eastern end line—

Q. Yes.

A. No, sir; that would not extend through the ground in controversy.

Q. There is one other thing I want to ask you.

(Testimony of William Clancy.)

What is this red you have shown up here on the Deering crosscut on the west of the Clancy fault on Exhibit 2?

A. That is some stopes, three floors of stopes, from a raise.

Q. What is the little working that runs north from the Deering crosscut in there?

A. It is evidently a crosscut from a drift from the stopes above; I should think it was a drift.

Q. That shows all the work that has been done there?

A. It does to my knowledge, all the work that I know of.

Q. It is a portion of the vein, is it, on the west side of the Clancy fault?

A. Not that I know anything about. [324—279]

Q. It is there, though?

A. That is, that that is a portion of the vein?

Q. Yes. A. I don't think so.

Q. There is some vein there, isn't there?

A. There is some ore there, also some ore a little further north, about 200 feet north.

Q. There is some ore there in the Senator Stewart claim, in the upper working too, over there, isn't there?

A. In the workings designated upper Stewart tunnel there is some ore.

Q. This apex that runs north and south here, you have traced that over to the south side line, or practically to the south side line of the Senator Stewart claim, haven't you?

(Testimony of William Clancy.)

A. I have traced it as it will be shown upon Plaintiff's Exhibit No. 1 to a point near the words "No. 7 Out" on Plaintiff's Exhibit 1, and further in a southwesterly direction along the top of the stopes near the end of the working marked "Old Lower Stewart Tunnel," that is, I had previously traced it.

Q. That is practically to the south side line of the [325—280] Senator Stewart claim?

A. It is within 60 or 70 feet of it, I believe.

Q. Would you object to just with a red pencil dotting that on your service map, Exhibit No. 3, just to show the course of that? If you would prefer to take it down, just so it is done by to-morrow morning will be all right.

A. Well, I will put it on now. (Marking.) Something like that.

Q. As you have marked it on Exhibit 3 in the dotted lines? A. Yes, sir.

Q. What is the course of that apex as you follow it across the Senator Stewart claim?

A. Approximately south 30 west or north 30 east.
Mr. GRAY.—That is all.

Mr. DINES.—That is all.

Witness excused.

Whereupon further hearing was adjourned until January 8th, at 10 A. M. [326—281]

[Testimony of M. W. Bacon, for Plaintiff.]

Wednesday, January 8th, 1913, 10 A. M.

M. W. BACON, after being duly sworn as a witness for plaintiff, testified as follows:

(Testimony of M. W. Bacon.)

Direct Examination.

(By Mr. GUNN.)

Q. Mr. Bacon, what position, if any, do you occupy with the Stewart Mining Company?

A. I am the general manager.

Q. How long have you held the position of general manager? A. About three years.

Q. What, if any, experience have you had in mining or in mining operations prior to becoming general manager of the Stewart Mining Company?

A. I have had experience in Montana running back for six years.

Q. In what district in Montana? A. Butte.

Q. And with what mines or mining companies were you [327—282] connected in Butte, Montana?

A. I was general manager of La France Copper Company, and of the Davis-Daly Copper Company and also manager of the Basin Reduction Company.

Q. And those mining companies were conducting quartz mining operations? A. Yes, they were.

Q. And what, if any, experience in mining have you had in Idaho, with the exception of that as general manager of the Stewart Mining Company?

A. Other than the handling of one small property, which is not a producer, I have occasion to look pretty much all over the country and the properties in the district.

Q. When did you first become acquainted with the property of the Stewart Mining Company?

A. In 1906.

(Testimony of M. W. Bacon.)

Q. I call your attention to Plaintiff's Exhibit No. 1, and ask you if you recognize that as a map purporting to represent the workings of the Stewart Mining Company?

A. It does represent the workings of the Stewart Mining Company.

Q. Will you please step to the map and tell us to what [328—283] extent those workings had been at the time you first became acquainted with the property.

A. What is shown on the map as No. 4 tunnel had been run, and a number of these surface cuts—not this one, however.

Q. In making your references, make them so the record will show what they are.

A. Well, a number of surface cuts, A tunnel, O tunnel and one in the Senator Stewart Fraction which is unmarked, had been run.

Q. Locate that last one, please.

A. That is about 360 feet west of the east end line of the Senator Stewart Fraction and 120 feet south of the north side line of the Senator Stewart Fraction. The upper Stewart tunnel—nearly all of the workings shown as the upper Stewart tunnel had been completed, but not quite all. The old lower Stewart tunnel had been completed easterly through what is known as the Deering crosscut to approximately survey point 9545 in the Senator Stewart Fraction claim, and southerly and easterly in the Senator Stewart claim to approximately survey point 9511.

(Testimony of M. W. Bacon.)

Q. That, then, as I understand, is in general a description of the workings that had been made at the time [329—284] when you first became acquainted with the property?

A. Yes, that is correct.

Q. So that you would say that all the workings shown upon this map southeasterly from a line drawn through the top of raise No. 2, had been made since you became acquainted with the property?

A. They have, yes.

Q. Now, what have your duties as general manager involved?

A. They have involved the handling of the business of the corporation and the entire development in the underground workings, and the acquisition of surface grounds around our original holdings.

Q. And to what extent have you supervised or directed the mining operations of the company as general manager?

A. I have supervised and directed all of the operations underground for a period commencing in April, 1910. Prior to that period the work of running this crosscut—the crosscut to the ore body in the Senator Stewart claim and the Deering crosscut—

Q. That is rather indefinite.

A. It is on the old lower Stewart tunnel level. Prior [330—285] to that, the work upon the old lower Stewart tunnel level had been directed and completed by others to a point approximately at survey point 9528.

(Testimony of M. W. Bacon.)

Q. In the Senator Stewart claim?

A. In drift No. 4 in the Senator Stewart claim, and northwesterly therefrom to survey point 9522 in drift No. 4 in the Senator Stewart Fraction claim, and not quite to point 9962 in drift No. 4 in the Senator Stewart Fraction claim, but from the old Deering crosscut and on from the southwesterly end of that drift.

Q. Then are we to understand that all of the workings southeasterly from a line drawn at right angles to the south side line of the Senator Stewart Fraction claim through a point at the top of what is designated as raise No. 2 have been made under your direction, with the exceptions that you have referred to? A. They have.

Q. Please point out, if you will, what work or development has been done for the purposes of or in the interest of this litigation; I will confine that to the Stewart Mining Company.

A. We have extended the apex crosscut in the Senator [331—286] Stewart claim to the Apex drift and drifted easterly and westerly thereupon. We also extended a hanging-wall crosscut from this drift and from the top of the stopes above raise No. 4. We have extended raise No. 4 to the surface along the apex. We have extended crosscut No. 3 easterly on the old lower Stewart tunnel level, to cross-cut the vein from drift No. 4 east to drift No. 5 east. We have extended the raise—

Mr. GRAY.—I think Mr. Clancy has referred to those as the different levels. It might be more definite.

(Testimony of M. W. Bacon.)

A. All right. I am now on the old Stewart tunnel level. We will say drift No. 4 east and No. 5 east on the old Stewart tunnel level. We extended raise No. 218 east from the 200 foot level to the old lower Stewart tunnel level. We extended raise No. 314 east from the 300 foot level to the 200 foot level parallel to the east end line of the Senator Stewart Fraction.

Q. I will ask you to confine your description to workings which have been made by the Stewart Mining Company in the interests of this litigation.

A. All right. We have extended the No. 405 east drift on the 400 foot level for a distance of approximately 70 [332—287] feet.

Q. That 400 foot level is referred to as *Fit* tunnel, is it not?

A. Yes. We have extended No. 7 raise in the Senator Stewart claim from the top of the stopes above No. 4 drift on the old lower Stewart level to the apex. That is all the workings that have been done for the purposes of this litigation.

Q. Now, what work, if any, has been done by the Ontario Mining Company within the lines of the Stewart property since the commencement of this action?

A. The Ontario Mining Company did a little pumping in drift No. 1 east on the old lower Senator Stewart tunnel level. They extended raise 415 east above drift 405 east on the Fir tunnel level in the Switchback claim, and drifted easterly along the contact of the vein and the Osborn fault therefrom ap-

(Testimony of M. W. Bacon.)

proximately 35 feet. They also had us do some cleaning out of the caved portion of the raise No. 300P, but there is nothing shown there.

Q. Calling your attention here to the raise above what is designated on the map as the Gray drift, called the Gray raise, I will ask you by whom that raise was made [333—288] and when.

A. That raise was extended by the Ontario Mining Company into the Stewart Company's drift No. 305 west, and while we had announced our intention of sinking on this ore body into the stopes above the Gray drift, we were advised by Mr. Easton that he would extend that raise upward on the ore instead of our sinking on it, and that was satisfactory to us. [334—289]

Q. Have you visited and examined the workings shown upon this map beneath the surface of the Ontario vein, and are you familiar with those workings?

A. I have visited and examined nearly all of them. I have not visited this raise—I do not know what level that is called, but on the first level below the Ontario Silver King tunnel level. There is some workings on the east end of that crosscut on that level that I have not seen.

Mr. FOLSOM.—We call that the McDonald crosscut.

The WITNESS.—That raise just mentioned is almost on the south side line of the Ontario claim.

Mr. GUNN.—Q. Now, calling your attention to all of the workings shown beneath the surface of the Senator Stewart Fraction, the Senator Stewart, the

(Testimony of M. W. Bacon.)

Lazy Jean and the Ontario southeast of a line drawn at right angles to the south side line of the Senator Stewart Fraction claim shown as the top of raise No. 2 west, I will ask you how many veins are exposed by those workings. A. Only one.

Q. That is to say, the vein in the Ontario is the same vein that you find in the Senator Stewart Fraction and in the Senator Stewart? [335—290]

A. It is, yes.

Q. What evidence is there in those workings from which you conclude that there is but the one vein?

A. There is but one vein and but one ore body, although that ore body has a fracture through this section and is torn apart.

Q. Designate the section.

A. The southeastern section of the Senator Stewart claim. The evidence that this is all one vein is that it can be traced continuously on commercial ore from within any point twenty-five or thirty—approximately twenty-five or thirty feet—below the apex in a great many varied ways through our workings on commercial ore into any other point in the vein and ore body, both in the Ontario claim above the Gray drift and Frank drift as well as in the Senator Stewart claim and the Senator Stewart Fraction claim.

Q. I will ask you now to follow on this map the workings showing the vein continuous from the Frank ore body to the vein in the Senator Stewart Fraction claim; specify the workings as you pass along and what is disclosed in the workings.

(Testimony of M. W. Bacon.)

A. Commencing at a point shown on Exhibit 1, Frank drift, [336—291] in the Ontario claim, and going up Frank raise No. 1 from that drift to the Senator Stewart Mining Company's drift 305 west—

Q. Just a moment. Perhaps it would be briefer if you would, as you take up each raise and each level, state what is disclosed in that level with reference to the vein or with reference to ore.

A. The Frank drift was driven all on commercial ore which has been extracted and milled, and above this drift the Frank raise was run on commercial ore and is being mined. This is the extent of the Ontario workings and is the connecting point into the Stewart workings, the Ontario workings on and above the Frank drift. The top of this raise connects on very high grade ore with the Senator Stewart drift 305 west, of the 300, along which we extend northerly all on commercial ore until we reach raise 328 west which is all on high grade commercial ore to the 200. Reaching the 200 level of the Stewart Mining Company's workings we go east upon the vein and ore body. This ore body is all commercial to raise 223 west. Raise 223 west is extended to the old lower Stewart tunnel level all on commercial ore, and from which point—from the top of [337—292] which raise we would go northerly and easterly either along drift No. 4 east through the stopes above drift No. 4 to any point of the apex in the Senator Stewart Fraction claim. We can follow that to any point of that apex either through drift No. 4 or going down on the intermediate by going into the 100

(Testimony of M. W. Bacon.)

or into the 200 and go on commercial ore to any point 25 or 30 feet below the entire apex from where it crosses the east end of the Senator Stewart Fraction claim to where it crosses the south side line of the Senator Stewart Fraction claim.

Q. Now, you have followed from the Frank ore body to the vein in the Senator Stewart Fraction claim, and I will ask you to follow in the same way, if you can, through the workings from what is referred to as the Gray ore body to the vein or ore body in the Senator Stewart Fraction claim.

A. Starting from the Gray drift which was driven upon commercial ore and there has been stopes extended above the same and going up the Gray raise which we insisted upon being driven in order to connect with our west 305 drift—this is all upon commercial ore—this 305 west drift of the Stewart Company's which was extended into the Ontario Mining Company's surface in order to make this positive connection [338—293] is all on commercial ore, although small in some sets, until it reaches raise 314 west. Raise 314 west is driven on the vein and ore body from the Senator Stewart 300 level to the Senator Stewart 200 level. This raise is on ore and is being stoped. From the moment we reach the top of raise 304 on the 200 level of the Senator Stewart Company, which is at this point on the stope map—

Q. Just a moment; this point, that does not show in the record.

A. All right, I will explain it. We extend from the top of raise 314 west easterly along the 200 level

(Testimony of M. W. Bacon.)

all on commercial ore to a point approximately survey point 2041, from which point we can go into stopes which can be and are and have been connected with all the points of the apex in the Senator Stewart Fraction upon high grade and commercial ore bodies. I say to all the points of the apex, I mean by that to all of the tops of the stopes just under the apex.

Q. You spoke of a separation between what is referred to as the Frank ore body and the Gray ore body beneath the Ontario. I wish you would follow on this map, if you will, any course through the workings on the vein that will connect the Frank ore body with the Gray ore body, the shortest [339—294] course.

A. That can be done in several different ways, but the shortest course, starting from the Frank drift of the Ontario Company's workings through Frank raise No. 1 into the Stewart Company's 305 west drift and up raise 328 west to the 200 level of the Stewart Company, where we would go easterly along this drift until encountering No. 11 fault, at which point it would be necessary to go up into the stopes about 35 or 40 feet above the drift and where we pass through this fault (indicating) upon continuous ore and again descend under the fault into the 200 level we would continue to go easterly upon the 200 level upon the vein and ore body until we reach the top of raise 314 west where we would go down this raise to the 300 level.

Q. This raise—what raise is that?

(Testimony of M. W. Bacon.)

A. I just mentioned it. Raise 314 west to the 300 level and enter drift 305 west on the 300 level and extend westerly thereupon to the top of the Gray raise and into the stopes of the Ontario Mining Company which are up into this drift.

Q. You mentioned the No. 11 fault. What effect, if any, does the No. 11 fault have upon the ore bodies in the [340—295] Ontario, if you know?

A. It has the effect of displacing the ore body in the Ontario about 100 feet.

Q. State whether or not that fault is disclosed in the workings higher in the Stewart Company's ground, and if so, where.

A. That fault is disclosed in our 300 level and 200 level at approximately survey point 2113 on the 300 level and at survey point 2073 on the 200 level.

Q. And what effect does it have upon the ore bodies on the 200 level in the way of displacement, if any?

A. The displacements on the 200 level is approximately 30 feet.

Q. And what are the conditions above that level and for what distance?

A. Forty feet above that level the ore body connects it and makes one continuous ore body and any action from the fault is lost entirely.

Q. I notice that the workings as shown upon this map terminate in the northeasterly portion of the Senator Stewart Fraction claim. Why were not those workings extended farther than shown? [341—296]

(Testimony of M. W. Bacon.)

A. They were extended to the end of the vein upon those elevations and encountered what we know as the Osborne fault.

Q. What course does the vein take from the termination along the Osborne fault in a southerly direction—upward or downward?

A. In a southerly direction downward. It extends up along the fault for forty or fifty feet before taking this course away from the fault downward into the earth.

Q. To what extent is the vein disclosed along the Osborne fault above the points where stoping has ceased?

A. The vein is disclosed along the Osborne fault through and above the 300, 200, 100 and east end of old Senator Stewart tunnel level. It is disclosed approximately forty feet above the stopes. Above the raise 4 east it is disclosed about ninety feet above the stopes. [342—297]

Q. Can you trace on the map the termination of the vein along the Osborn fault as you know it to exist from the development in the ground?

A. The vein terminates along a plane parallel to the Osborn fault, and the best way that I can express it is to say that it simply feathers out.

Q. At what point is the top or termination of the vein, as distinguished from the commercial ore, exposed in those workings, the points, if you can state?

Q. Commencing at the end line of the Senator Stewart Fraction claim, the apex or top of the vein is exposed approximately 25 feet above the tops of

(Testimony of M. W. Bacon.)

the 300 stopes. It is arrived at by projecting the vein across the line from raise 314 east parallel to the line, about 75 feet therefrom. The apex of the vein is again seen by going up raise 314 east and extending westerly on the 200 foot level. The apex of the vein is again seen approximately 50 or 60 feet west of the face of 205 east crosscut on the 200 foot level. Going westerly till you get to raise 218 east, this raise is extended practically on the apex from the 200 foot level to the east end of drift No. 5 east on the old lower Stewart tunnel level. This drift No. 5 east on the old lower [343—298] Stewart tunnel level is slightly under the apex from survey point 2549; I should say that it is approximately on the apex to survey point 2549, or I will make that survey point 2571; I am quite sure that it extends that far along. From that time we have not got the apex developed by individual operations until we reach the east drift in the Apex drift.

Q. Will you mark on the map with a letter the point to which you say the apex is exposed westerly from the east end line from the Senator Stewart Fraction, the survey point to which you have referred?

A. Why, I have not made those surveys myself, and I cannot state just exactly where the end of that apex is. It is approximately in here.

Q. You cannot locate it definitely not having made the surveys?

A. I have not made the calculations definitely enough.

(Testimony of M. W. Bacon.)

Q. Pass through the Apex drift and follow the apex as you know it to exist from observations made in the ground through the Apex drifts and raises.

A. Now, continuing westerly along the line of the apex from the east end of the Apex drift where it is encountered, it takes a broad arc as shown by the Apex drift. It was [344—299] extended along the footwall until reaching point 2566 where it encounters the Osborn fault and makes a turn along the plane of the Osborn fault easterly, and eventually southeasterly away from the plane of the Osborn fault. From survey point 2566, going westerly, the apex is above the drift, and is again disclosed within ten feet of the surface near the top of raise No. 4 east which is above the Apex drift, about 40 feet above the Apex drift. Continuing westerly, the west end of the Apex drift is run on the footwall, and the apex is within 30 or 40 feet above the west end of the Apex drift until it encounters what we know as the Clancy fault in the west end of the Apex drift, and we have no apex above this fault.

Q. Is the apex of this vein or ore body exposed at any other points in the Senator Stewart claim; if so, point it out?

A. It is again exposed, or it was again exposed near the top of No. 9 raise. That raise is not extended to the top of the stopes here on this level, but it was exposed there; the ore body made commercial ore up within about 20 feet of its apex, where the vein became so lean and poor that it was not worth extracting, but just at this point we had [345—300]

(Testimony of M. W. Bacon.)

quite an extensive cave of the ground, and I took the trouble one day to climb up through there and see what could be discerned, and I could see that this apex of the vein was disclosed there under the Clancy fault, the same as it is here, and the same as we have it at the top of raise No. 2 west, about 20 or 25 feet above the commercial ore body.

Q. Now state, if you will, in a general way, the angle of declination of the vein as it departs from the apex which you have described.

A. Well, you can take an angle of declination at any point within the arc, and you can get in consequence an angle of declination at right angles to any point of that apex within the arc.

Q. Well, I assume that to be true. But take the section of the apex which you have described, extending westerly from the easterly end line of the Senator Stewart Fraction, and state what the angle of declination of the vein is from that apex.

A. Starting at the point where the apex crosses the end of the Senator Stewart Fraction, the angle of declination is at right angles to the strike of the apex, which is southeasterly and northwesterly along the plane of the [346—301] Osborn fault, approximately north 75 or 80 west, and the angle of declination from that is at right angles to that strike.

Q. And what would be the angle of the declination in degrees, approximately?

A. The angle of declination in degrees from the plane of the fault is all the way from 65 degrees as it immediately parallels the fault, to a gradual turn-

(Testimony of M. W. Bacon.)

ing angle of declination to 20 degrees, found in the ore bodies under the Ontario claim.

Q. This will be shown by the cross-sections, I take it.

A. These angles are all shown by the cross-sections. It matters not where these cross-sections are taken, whether they are taken at the east end line or at any point west of the east end line of the Senator Stewart Fraction along the apex in its course to and crossing the south side line of the Senator Stewart Fraction claim, you will get an angle of declination into the ore bodies under the Ontario claim.

Q. Then I take it that it will necessarily follow that the ore bodies in the Ontario are on a lower plane than the ore bodies in the Senator Stewart Fraction?

A. They are. [347—302]

Q. I notice on this map the Silver King tunnel designated. By whom was that tunnel constructed?

A. That tunnel was constructed—we have no survey of that tunnel, but it was constructed in its long extended straight course to within approximately 100 feet of the east end line of the Senator Stewart claim, by the Stewart Mining Company.

Q. And from that point on it was constructed by whom?

A. From that point on I was first informed it was being constructed by the Bunker Hill & Sullivan Mining Company in order to connect with a working—

Mr. GRAY.—Well, I object to that.

Q. Well, what you were informed would not be

(Testimony of M. W. Bacon.)

proper. If you know by whom it was constructed you may state.

A. Well, I will say that it was constructed by the Ontario Mining Company. I have since learned that that is the fact.

Q. Now, to what extent in depth had this vein in the Senator Stewart Fraction and the Senator Stewart claim been developed in the Senator Stewart claim at the time this Silver King was extended beyond the point to which the Stewart Mining Company constructed it? [348—303]

A. The development of the ore bodies in the Senator Stewart and the Senator Stewart Fraction claims had consisted of opening up the ore body continuously from above drift No. 4 east on the old lower Stewart tunnel level to a point within 65 or 70 feet north of the south side line of the Senator Stewart claim, and the 100-foot level had been opened up and the ore encountered on the 200-foot level by the Stewart Mining Company.

Q. And state, if you can, through what opening the ore has been extracted from beneath the Ontario claim.

A. Through the Silver King tunnel, driven by the Stewart Mining Company.

Q. And when, if you can say, was the Silver King tunnel extended into or beneath the surface boundaries of the Ontario?

A. Sometime in August, 1911; I cannot say the positive date, because it was being run prior to my knowledge of the fact.

(Testimony of M. W. Bacon.)

Q. I will ask you if that extension of the Silver King tunnel beneath the surface of the Senator Stewart claim was made with the consent or knowledge of the Stewart Company. [349—304]

A. No, it was not.

Q. Now, what, if any, difference is there in the structural features of the vein as you find it along the east and west apex in the Senator Stewart Fraction claim and the structural features of the vein as you find it at other points beneath the property of the Stewart Company or beneath the Ontario claim?

A. They are the same; you cannot distinguish any difference whatsoever.

Q. What is the character of the ore or mineral in the vein in the Ontario claim as compared with the character of the ore or mineral in the vein in the Senator Stewart Fraction claim?

A. It is the same. It is all the same.

Q. In the evidence, the ore bodies in the Ontario have been referred to as the Frank, the May and the Gray. Are you familiar with the ore body in the Ontario that has been referred to as the May ore body? A. I am, yes.

Q. What, if any, connection has that ore body with either of the ore bodies in the Ontario?

A. The May and Gray are the same ore body. [350—305]

Q. Why do you say they are the same ore body?

A. Because there is a little fault right in here that has a displacement on that level, but my recollection is that two or three sets above that little level that

(Testimony of M. W. Bacon.)

those ore bodies connected and there was no displacement of the fault.

Q. You described certain work that had been done for the purpose or in the interest of this litigation. I will ask you for what purpose all other work shown upon this map was done.

A. For the purpose of extracting commercial ore.

Q. And in the ordinary course of mining operations? A. Yes, sir.

Q. Mr. Bacon, I will direct your attention now to the workings shown upon this map in the westerly portion of the Senator Stewart Fraction claim and the Senator Stewart claim, and ask you what if any connection there is between any ore body or vein shown in those workings and the vein which you have referred to as the Stewart vein, disclosed in the workings in the easterly portion of these claims.

A. There is absolutely no connection whatsoever, and [351—306] we have endeavored very strenuously to make some connection.

Q. What, if any, work has been done with a view to determining whether or not the vein known as the Stewart vein extends northwesterly beyond the point where you say it is terminated against the Clancy fault?

A. There has been much money spent through this section of the country; in fact, the ground has been more thoroughly prospected than all of the rest of the property or any points in the property, but it has been so unsuccessful that we finally gave it up. Now, in doing that work there was Raise B. That

(Testimony of M. W. Bacon.)

should be marked.

Q. Perhaps you had better mark it.

A. I have marked it "Raise B."

Q. That is the raise near the line marked "III"?

A. That is near the intersection of the line "III" and the Deering crosscut on the old lower Stewart tunnel level. That raise was put up, and a lot of gophering done around there; at the point of the apex or approximately under the point of the apex just at the top of the stopes near the top of raise 7 a crosscut was extended westerly over to approximately the 85 foot level of the upper Stewart tunnel level, and then a number of openings were made, small [352—307] openings; short workings were run both by the present management and by Mr. Samuels before he disposed of the property, in order to make or find some continuation of this small ore body, but without success.

Q. And what is the distance approximately between the termination of the vein known as the Stewart vein and the ore body exposed further westerly in the property? A. About 200 feet.

Q. Now, you have referred to the 400 level or the Fir tunnel. Is that a crosscut?

A. No, that is a drift.

Q. For a certain distance?

A. Yes, it is a drift; it is on the ore body for a certain distance; I should say it is a drift to the end of the Fir tunnel level, or to point 2094; there are crosscuts from there.

(Testimony of M. W. Bacon.)

Q. Where, if at all, is the Osborne fault exposed in that level?

A. The Osborn fault is exposed just north of survey point 2513 upon that level.

Q. And how far beyond that point does the tunnel extend before it reaches the portal? [353—308]

A. 2,200 feet, approximately.

Q. And what, if any, evidence is there of any vein shown in this tunnel beyond the point you have designated as the Osborn fault?

A. Not any; we were never able to find anything in that section of the country.

Q. What, if any, evidence is there of this vein existing or extending at any point along what you have described as the apex here, northeasterly of the Osborn fault? A. No evidence whatsoever.

Cross-examination.

(By Mr. GRAY.)

Q. You said something about Mr. Samuels owning that property; what was it that the interest you represent acquired it from Samuels?

A. In 1906, sometime.

Q. When did you first come over to see the property? A. I was over here in 1906.

Q. At that time what workings were there on that property at the time you acquired it from Samuels?

A. My recollection is that these— [354—309]

Q. Let us start out close to the surface and work downward.

A. This No. 4 tunnel was driven, this upper Senator Stewart was driven and the old lower Stewart

(Testimony of M. W. Bacon.)

tunnel was partially driven.

Q. How far?

A. My recollection is that that was approximately in to about survey point 9545.

Q. On the Deering crosscut?

A. On the Deering crosscut, and approximately to survey point 9550 in the southeasterly crosscut.

Q. What other of these drifts, drift No. 1 or drift No. 2 from the Deering crosscut, had been run?

A. Drift No. 1 had been driven a short distance, I think to approximately point 2106, and drift No. 2 had been driven a short distance, to approximately point 9505C.

Q. Had the 35 foot level been opened in there?

A. Yes, the 35 foot level had been partially opened up.

Q. And ore stoped there?

A. There had been some ore taken out on this level.

Q. Now, then, down in the Senator Stewart at the upper tunnel, had the 145 foot level been driven or opened up at that time? [355—310]

A. The 145 foot level had been partially opened; I am inclined to think that all the work now shown on the 85 foot level was done. My recollection is that we did some work in this 145 foot level, and I know we did some work in this 85 foot level, but I think it was in this little drift off from that level.

Q. The drift to the south?

A. The drift to the south.

Q. And the work along the drift from the upper Stewart tunnel, the drift running northerly and

(Testimony of M. W. Bacon.)

southerly had been done, or a portion of it?

A. Yes. Mr. Samuels did nearly all of this work here, with a view of trying to find some continuation of this ore body and he gave it up as a bad job, and that is the reason he sold the property because he could not find any continuation of the ore bodies on the west.

Q. And that is the reason you bought it, I suppose?

A. No, we thought it could be found.

Q. And it was?

A. We thought the ore body could be found.

Q. Well, this development justifies me in suggesting that it has been. Now, considerable ore had been stoped [356—311] along in that vein there?

A. Some ore was stoped there, not any of any consequence.

Q. No, not compared to the great quantity that has since been stoped, but there was ore sufficient to stope and ship.

A. Why, only when you were operating the mine.

Q. Didn't he ship it? A. No.

Q. What did he do with it?

A. He picked out a little first class ore and shipped it from this piece of ground, and also there, but a very small quantity; it did not amount to anything in comparison with our extraction.

Q. Have you been able to find the Clancy fault in any of this working from the upper Stewart tunnel level?

A. No, we have never been able to locate that anywhere else except where it is shown here.

(Testimony of M. W. Bacon.)

Q. I asked you now in the upper Stewart tunnel level, you have not found it?

A. No; I said we have never been able to locate it anywhere else but there where it is shown.

Q. Just answer my question. Now, the 145 foot level [357—312] was a drift on the vein, wasn't it?

A. Well, that is a question, whether it is a drift on a vein or not.

Q. What was the course of the vein there?

A. I don't recollect that working well enough to say.

Q. What was the dip?

A. The country is so broken up through there that you cannot tell anything about it. It is very hard to get a uniform course or dip, and it is practically all closed up at this time, that level is.

Q. The miners drove it along on the vein?

A. They were hunting for the ore, yes.

Q. And expected to find it in a vein, I presume?

A. The country there is all cracked and broken.

Q. You said that was a part of the property on which you had spent as much money on it in development work as in the section which lies west of the Clancy fault. Why haven't you put that work on the map, if you have spent so much money there?

A. It was done for prospecting, not developing.

Q. Just tell the Court where you, since your interests have acquired this property, have spent a great deal of [358—313] money west of the Clancy fault, where you say you have spent so much money in prospecting.

(Testimony of M. W. Bacon.)

A. Well, this work east and southeast of the apex of our vein and ore body, as it comes up to the Clancy fault, has been in extracting one large mass and sheet of ore.

Mr. GRAY.—I move to strike that out as not responsive.

A. (Continued.) Now, that work in the extracting of that ore and the developing of that ore, that is the extraction of ore and not prospecting in any sense of the word. Now, there has been no prospecting done in that section of the country except a crosscut being driven here. The rest of it has simply been in the extraction of the ore for the purpose of milling. Through this section of the country, this crosscut—

Q. Just refer to that.

A. Through the center section of the Senator Stewart Fraction this crosscut west of the Deering crosscut has been run.

Q. West of the Clancy fault?

A. The number 2 drift has been run and the number 1 drift has been run, the No. 2 drift east has been run and the No. 1 drift east has been run; drift No. 2 west has been run, the [359—314] upper south crosscut has been run, the upper Stewart tunnel level and all of the workings there have been run; the 145 foot level below this upper Senator Stewart tunnel level, the No. C tunnel level has been run, the 85 foot level below the upper Senator Stewart tunnel level was run off the Samuels raise; the southeasterly crosscut was run and the No. 4 tunnel was run, all prospecting work, and all dead work.

(Testimony of M. W. Bacon.)

Mr. GRAY.—Now, if your Honor please, I object to that answer as not being responsive to the question, and I will ask to have it read.

The COURT.—Read the question.

Mr. DINES.—We insist that he answered the question. Mr. Gray called his attention first to the language “You said there was more prospecting done in the west than in the east.” That involves a comparison, and the witness has given it, and given that comparison as a reason for it. That answered the question.

The COURT.—As I remember the question and the answer, the first part of the answer was not responsive to the question.

(Last two questions and answers read.) [360—315]

The COURT.—I think he has answered that question. The first part of his answer was not responsive to the question, but the last paragraph was.

Mr. GRAY.—Well, I will have to cross-examine him somewhat further to show that he has testified apparently through a misunderstanding. [361—316]

Q. Your interests did not run the south Senator Stewart tunnel level to the point approximately 9551, did they? A. No, I did not say that.

Q. What point did you say? A. I said 9550.

Q. Let us make this short. Now, just tell the Court where you, your interests, since you acquired this property have spent any money in prospecting or any work west of the Clancy fault?

A. We have spent money along through the tops

(Testimony of M. W. Bacon.)

of these stopes with all short footwall crosscuts.

Q. There are none of them shown on the map.

A. They are not on the map; they are not very extensive.

Mr. DINES.—I would like to say that this map that you refer to is Exhibit 1.

Mr. GRAY.—Yes, sir.

The COURT.—Yes, sir.

Mr. DINES.—And not a stope map?

A. I cannot say how many of these have been run; they were done in the ordinary course of our mining operations with the attempt to develop, if possible, something in this [362—317] section of the country.

Q. Yes, sir. Now, “in this section,” you are referring to the section—

A. I am referring to the section approximately through the center easterly and westerly of the Senator Stewart Fraction claim.

Q. Yes, sir. Now, how long was the longest cross-cut westerly?

Mr. DINES.—One moment. Let the witness answer the question. You asked him to point out the work. Now, he has pointed out part of it and I would like to have him point it all out; otherwise the answer would seem to be all.

The COURT.—Yes, let the witness proceed.

Mr. GRAY.—I thought it might be a little clearer the other way, but I am perfectly willing to proceed the way Mr. Dines wants me to. He seems to want to direct this.

(Testimony of M. W. Bacon.)

Mr. DINES.—No, I do not want to direct anything; I want the witness to be treated fairly, Mr. Gray, is all.

A. We ran this No. 7 crosscut through this section of the country. We kept men working up through this section of the country— [363—318]

Q. Well, just say where?

A. (Continuing.) —gophering around. Over the upper Stewart tunnel level. I could not say how long we kept men in that employ attempting to find some continuation of the mineralization shown there, but I do know that we spent very much time and considerable money right here in this section.

Q. Where?

A. Between survey points 9569 and 9570 of the upper Stewart tunnel level, in attempting to disclose something there that would give us some information or some clue as to a possible continuation of our big ore body or another—or the continuation of this showing with depth.

Q. Is that all?

A. And raise B, we extended raise B and also extended the Deering crosscut; we extended drift 1 east and drift 2 west; we also did some work in this 2 east, but I cannot say just exactly what that was.

Q. Is that all?

A. I think that is all the prospecting we did in that ground.

Q. As a man of your experience in mining, do you pretend [364—319] to say to his Honor here that the extension of the Deering crosscut from its face

(Testimony of M. W. Bacon.)

when you acquired that property to the point where it connects with the Stewart tunnel level would develop the Clancy fault or the vein, if it existed, between the upper workings—

A. Certainly it might.

Q. And—

A. It might. It is possible. We have not stoped to make a connection between this apex and this (indicating) because we have decided long ago that is impossible. We have hoped to find another ore sheet under this apex.

Q. Yes; I do not care about your hopes. What is the dip of that Clancy fault?

A. It is pretty flat up here, but you cannot tell, it may be dissipated at any point.

Q. What do you call flat?

A. My recollection is about thirty degrees, something like that.

Q. Dipping westerly thirty degrees or northwesterly? A. Northwesterly, yes, sir.

Q. Do you say to the Court that the Deering crosscut would develop that? [365—320]

A. Not from this point on, provided it maintained its dip. It may not maintain its dip; you know.

Q. The Deering crosscut was driven over to connect with the Stewart tunnel level, wasn't it?

A. It was driven to prospect—

Q. Answer that yes or no and then make your explanation.

The COURT.—And then make your explanation.

A. It was not.

(Testimony of M. W. Bacon.)

Mr. GRAY.—All right. Now you can explain, if you want to.

A. The Deering crosscut was driven in order to prospect the most easterly end of the Senator Stewart Fraction claim.

Q. This raise at B which you say you did some work in, you developed some ore up there and had some stopes out of which you took some ore, didn't you, shown on the stope map here?

A. We had a little ore there; it did not amount to anything.

Q. Yes, sir, and that shows the extent of your work there, doesn't it?

Mr. DINES.—Please refer to that as an exhibit.
[366—321]

Mr. GRAY.—It is the stope map. The Court understands it.

Mr. DINES.—But the record does not show it. We have a right to have the record show it.

Mr. GRAY.—I am perfectly willing that you should call it that, and I will do it any way you want me to.

Mr. DINES.—I do not wish to interrupt counsel or to be discourteous in the least. I am doing this in the interest of the record, and I hope counsel will not take offense. I do not mean to be offended or be offensive. It is customary in this case to refer to them as exhibits.

Mr. GRAY.—Of course, you have tried many more cases than I have, and I must defer to your experience.

(Testimony of M. W. Bacon.)

The COURT.—Let it be referred to as Exhibit 2.

Mr. GRAY.—Exhibit 2, then, instead of the stope map.

The WITNESS.—What is the question?

(Question read.)

A. Yes, sir, we had a little ore up there and we did a lot of work up there attempting to find some continuation or correlate it with something, but it could not be done.

Q. This Exhibit No. 2 shows the extent of that work?

A. Yes, sir, it shows the extent of that work.
[367—322]

Q. How high was that raise?

A. About fifty feet, possibly sixty.

Q. Now, then, coming over here to this other work that you say you did about the drift.

The COURT.—On Exhibit 1.

Mr. GRAY.—On Exhibit 1, from the upper Stewart tunnel. That work was done in a westerly direction from the tunnel.

A. They were working here.

Q. No, upper Stewart tunnel. You said you did some gophering—I don't know—from that level you said.

A. We sank a wind in there from the shaft down about—between survey points 9569 and 9570, about forty feet, I think, and of course we were disappointed.

Q. Yes, sir. What else did you do there?

A. Just at this point?

(Testimony of M. W. Bacon.)

Q. Any point; yes, sir.

A. I am not familiar with just exactly what our men were doing up there all the time. I know we had them on the roll.

Q. Yes, sir; what other work did you do?

A. We extended this from point—

Q. The level, southerly?

A. Westerly from survey point 9571, and the working [368—323] extended westerly.

Q. Yes, sir; what else?

A. I think that is all that shows on this map, that all of the workings up in that section are not on this map.

Q. It is not a complete map then with reference to that section of the country?

A. No; there are some little workings up there that have been closed, and I do not know that they ever were mapped.

Q. Just little holes driven in eight or ten feet, I presume, here and there.

A. It was ground that could not be held open.

Q. What was the longest one of these crosscuts westerly that you have driven from the upper end of these stopes against the Clancy fault?

A. Those crosscuts are extended approximately sixty feet.

Q. Where is that one that is sixty feet long?

A. They do not any of them show on this map.

Q. You have already told us that two or three times. Now, tell us where it is.

A. We extended one of those crosscuts in the foot-

(Testimony of M. W. Bacon.)

wall [369—324] somewheres near the center section of the Senator Stewart Fraction claim.

Q. When did you do that?

A. That was sometime while we were stoping that ground up there.

Q. In what year, 1911 or 1912?

A. I think it was the early part of this year is my recollection.

Q. Of 1912? A. Yes, sir.

Q. You mean last year? A. Yes, sir.

Q. Just approximately where was it on the stope map, Exhibit No. 2?

A. It was somewheres in here; I do not remember just exactly where that crosscut was driven.

Q. Is that open now?

A. Those crosscuts were driven with two ends in view, one was to fill our stopes with waste, and the other was to do what prospecting could be done.

Q. Is it still open? A. No. [370—325]

Q. Where were the other crosscuts that you drove over in there?

A. I do not attempt to locate those definitely because they were not successful and were not located upon the map. As I say, the object was to fill our stopes as well as to prospect that section of the country.

Q. Now, there is one question I want to ask you about this map here. Mr. Gunn asked you to start in on the Gray ore body and follow it over to this alleged apex of yours on the vein. Why was it necessary for you to travel up any of the raises in order

(Testimony of M. W. Bacon.)

to get over to the alleged apex of the vein?

A. It is necessary for us to travel upward from the Gray ore body to get to our apex at any point of our apex.

Q. Let us take a look at this now. Starting in in the stopes of the Gray ore body you can follow along on the 300 foot level.

The COURT.—You are referring to Exhibit 2 now?

Mr. GRAY.—Exhibit 2, or Exhibit 1 for that matter, if your Honor pleases.

Q. You can follow along on the 300 foot level until you come to this alleged apex, can't you? [371—326] A. We can—

Q. Answer that question yes or no and then explain if you want to.

A. Yes, we can follow on continuous ore from the Gray ore body along the 300 foot level up to our apex.

Q. That is right on the level, can't you?

A. Not necessarily on the level; you cannot go on the level up to our apex, no; it is necessary to go up a raise—

Q. To go up a raise where?

A. In order to get to the apex.

Q. Where?

A. It is necessary to go up two raises.

Q. Where?

A. The Gray raise from the Gray drift in to the 300, and the raise 314 east from the 300 to the apex.

Q. Come over to the stope map and see whether it

(Testimony of M. W. Bacon.)

is necessary to go up the raise from the Gray. You start right in on the stopes, don't you?

A. You can start here at the top of the stopes.

Q. Yes, sir. The cross-sections show all that, though? A. Certainly they do. [372—327]

Q. Now, I understood you to say, Mr. Bacon, that this figure seven that you have got on Exhibit 3 is a great arc.

A. Yes, sir; it is in the form of an arc. This point up here is projected. The actual development shows in the Apex drift in Exhibit No. 1.

Q. As a matter of fact, when you acquired that property there were none of the openings upon this alleged apex which you are now presenting to the Court as the apex of the vein, it had not been developed? A. When we acquired the property—

Q. Could you answer, Mr. Bacon, one question without arguing it? Just answer it and then explain if you want to.

Mr. GUNN.—I submit that the comment of counsel upon the answer of the witness is not proper or warranted.

The COURT.—Let him answer the question and then explain.

The WITNESS.—Read me the question.

(Question read.)

A. No; this vein had not been developed, nor had any of the workings upon this vein been developed.

Mr. GRAY.—That is all. [373—328]

(Testimony of M. W. Bacon.)

Redirect Examination.

(By Mr. GUNN.)

Q. I will ask you whether from the prospecting that has been done that you have referred to, you consider that this country has been sufficiently prospected to determine whether or not there is any connection or any relation between the ore body disclosed in the most westerly workings and the ore body known as the Stewart ore body? A. I do.

Mr. GUNN.—That is all.

Witness excused.

Mr. GUNN.—There is one other matter that perhaps would be well to call to the attention of the Court now. Of course, this suit involves title, and we are also asking for an accounting. I do not know what the practice of this jurisdiction is.

The COURT.—I think I will probably refer it for an accounting.

Mr. GUNN.—Then it would not be necessary at this time to go into the question of an accounting?
[374—329]

The COURT.—I should prefer that you should not.

Mr. FOLSOM.—We prefer not.

Mr. GUNN.—We will conform to the wish of the Court.

Thereupon a recess was taken until 2:00 o'clock P: M. of this day, Wednesday, January 8th, 1913.
[375—330]

Wednesday, January 8th, 1913, 2 P. M.

Further hearing was adjourned until January 9th, at 10 o'clock A. M.

Thursday, January 9th, 1913, 10 A. M.

Mr. DINES.—May it please the Court, on account of the illness of one of our witnesses, who is still sick and under the care of a physician, we will have to change the order of our proceedings somewhat, and I will call Mr. Winchell to the stand.

[Testimony of Horace V. Winchell, for Plaintiff.]

HORACE V. WINCHELL, after being duly sworn as a witness for plaintiff, testified as follows:

Direct Examination.

(By Mr. DINES.)

Q. Mr. Winchell, state your full name, residence and occupation.

A. Horace V. Winchell, Minneapolis, Minnesota, occupation, mining geologist.

Q. How long have you followed the profession of mining geologist? [376—331]

A. I have been engaged in practical geological work for about twenty-five years.

Q. Did you have any technical training preparatory to entering that profession; if so, when and where?

A. I studied geology with my father, Professor N. H. Winchell, of the University of Minnesota. I graduated at the University of Michigan in 1889, where I took particular special studies in geology with my uncle, Professor Alexander Winchell, of that institution. Both before and immediately subsequent

(Testimony of Horace V. Winchell.)

to graduation I spent some time out of college in the study of geology in the field and in the laboratory, chiefly in connection with the work of the Minnesota Geological Survey. Since graduation I have been constantly engaged in the practice of my profession.

Q. What experience have you had since your graduation, either in the lines of general study or of editing literature along the lines of your profession, preparing papers, and what scientific societies are you a member of?

A. Immediately after graduation I resumed work upon the Minnesota Geological Survey, making studies of the iron ore ranges, the Mesabe and Vermilion Ranges in Minnesota for about two years. From 1892 to 1894 I was geologist in charge [377—332] of the exploring work of the Minnesota Iron Company, the owner of large iron mines in Minnesota. In 1895 I conducted additional geological survey work, particularly in the Rainy Lake gold region. Between 1894 and 1898 I was engaged in general consulting mining engineering and geological work, during the course of which time my investigations carried me over a considerable portion of the West, as well as the Lake Superior region. In 1898 I moved my residence to Butte, Montana, where I became geologist in charge of the geological department of the Anaconda Copper Mining Company. Shortly afterwards I had similar employment in connection with the Boston & Montana Consolidated Copper & Silver Mining Company, the Butte & Boston Consolidated Mining Company, Parrott Silver & Copper Mining

(Testimony of Horace V. Winchell.)

Company, the Washoe Copper Company, and possibly other companies operating mines in Butte. For eight years I occupied that position, and during that time made examinations in nearly all portions of the western country, ranging from Alaska to Mexico, covering British Columbia, Ontario, Alberta and other parts of the world. In 1906 I became geologist in charge of the geological department of the Great Northern Railway Company, occupying that position for two years, [378—333] directing explorations of mining property, acquiring, buying, exploring coal, iron ore and other property in the Lake Superior region and throughout the territory traversed by or tributary to the Great Northern and the Northern Pacific Railroad. Since 1906 my residence has been in Minneapolis, and I have been engaged in consulting work, making examinations constantly in various parts of North America and of Europe.

Q. Without going into detail, during those years have you contributed to the literature along the lines of your profession and studies?

A. I have prepared some rather unimportant reports upon mines and ore deposits.

Q. Have you made any special study of the nature and origin of ore deposits? A. I have.

Q. During what length of time in connection with the duties which you have detailed in following out the pursuit of your profession have you devoted study to this particular branch of the nature and origin of ore deposits?

(Testimony of Horace V. Winchell.)

A. I made a special investigation into the question of the origin of iron ores back as far as 1888 and 1889 and [379—334] 1890. I was joint author with my father of a report upon the iron ores of Minnesota, in which that question was considered at length. I have endeavored to acquaint myself with the literature on the subject since it began to be a subject of inquiry. I have made some investigations into the character and origin of copper ores and of other ores, so that I feel somewhat familiar with the investigations that others have made and with the theories generally adopted relative to the origin and geological relations of ore deposits.

Q. Have you had occasion during these years to make any observation and study of the question of the origin and nature of ore deposits, the structural features of veins, especially as related to the grant under the act of Congress of the rights of location on the public domain of lode locations?

A. I have done so.

Q. Have you had any experience during this time in the deposits and structural features of the veins in the Coeur d'Alenes? A. Yes.

Q. Over what period of years has that study and observation continued? [380—335]

A. Particularly during the last six years, or perhaps nearly seven years. I had been in the Coeur d'Alene District at earlier periods, but my familiarity with the Coeur d'Alenes has been quite thorough for the past six and a half or seven years. During that time I have made examinations in connection

(Testimony of Horace V. Winchell.)

with the development and acquisition of property, commercial reports, and in connection with questions of litigation which have arisen over the ownership of ore deposits in this camp.

Q. During those years have you at any time devoted any particular attention to a study of the ore deposits and structural features of the vein existing in the Senator Stewart Fraction, the Senator Stewart and the Ontario Lode Mining claim, and their contiguous mining claims immediately surrounding the territory involved in this litigation?

A. Yes, sir.

Q. When did you first make any observation or study of that particular deposit?

A. I visited the Senator Stewart mine about the middle of April, 1906, making a brief examination of the development of the ore in the property at that time. Subsequently, for the purpose of testifying in the case of Jonathan Bourne [381—336] vs. The Federal Mining & Smelting Company, and another case in which Jonathan Bourne was plaintiff and the Sierra Nevada Consolidated Mining Company was defendant, I examined the workings and development and geological features of the Ontario claim. Within the past year I have made additional examinations of all the workings accessible and open to examination in the Senator Stewart Fraction, Senator Stewart, Lazy Jean, Switchback and Ontario claims.

Q. Now, in order that we may understand, and for that purpose only, I will ask you this question: You

(Testimony of Horace V. Winchell.)

spoke of litigation between Jonathan Bourne and the Sierra Nevada Consolidated Mining Company. That was tried before his Honor Judge Woods, who now sits on the bench, was it not?

The COURT.—No.

A. The case against the Federal Mining & Smelting Company was in the State court, and the testimony in both cases was taken jointly.

Mr. FOLSOM.—It is just reversed; the Sierra Nevada case was here.

Mr. DINES.—That was my understanding.

A. Oh, very well.

Q. In order that Judge Woods may know whether any matters [382—337] he may have decided in that case are involved, I will ask you this question, and for that purpose alone: That investigation in which evidence was introduced before his Honor involved a so-called Ontario vein which was found in that to cross on its strike northeasterly of the northwest corner of the Ontario, and then following to the south across the east side line of that claim; is that correct? A. That is correct.

Q. Now, was that Ontario vein any vein that is involved in this controversy?

A. It was not. None of the workings developed in the Ontario at that time are shown upon the plan map, Exhibit 1, for the plaintiff in this case.

Q. Was the Ontario vein that was investigated in that case what is known and has been referred to, I think, in this case so far as the Ontario fault?

A. It was. I will say further that topographi-

(Testimony of Horace V. Winchell.)

cally—so that that map may be understood—topographically upon Plaintiff's Exhibit No. 1 the workings representing the developments upon the Silver King tunnel level and the 300 and the Fir tunnel levels are deeper in the ground than any development made and considered at the time of the [383—338] former controversy.

Q. Mr. Winchell, please define a vein.

A. A vein is a more or less tabular shaped mass of mineral or mineral bearing rock within boundaries, in place in solid formation, and containing such indications of value as to justify the miner in following it in the pursuit of ore.

Q. What classes of veins are there in the Coeur d'Alene district as far as your investigation has extended?

A. I should say that there are three classes of veins. The first, which occurs in this district but seldom, is called a contact vein, the mineralization of which has been derived from eruptive rocks and deposited along the contact of the eruptive rocks with other rock, usually sedimentary in this district. The second class of veins is that of fissure veins. Fissure veins are those which occupy an opening along a crack in the earth's crust, veins in which the mineral has been introduced to a certain extent into an open fissure, and in which the walls are more or less parallel, the strikes usually rather uniform, the dips rather steep, and the structure more or less banded with the arrangement of the minerals in layers or bands parallel [384—339] to the walls. Such

(Testimony of Horace V. Winchell.)

veins are found in this camp. In the immediate section under discussion here we find a class of veins which is quite common, known as replacement veins. Replacement veins are marked by several characteristics, and in general differ as to these characteristics from veins of the other two classes, particularly from the fissure veins. The first characteristic of replacement veins is that of irregular boundaries or outlines; the mineralization is not limited by defined and approximately parallel walls, but the ore has been deposited in the rocks, replacing particles of the rock, rather than filling an open space, and following in this replacement the more readily dissolved and replaced portions of the rocks. The boundaries, therefore, are frequently not parallel to each other. We have also the characteristic, very often, of flatter dips, the dip depending upon the dip of the rock, the rock layers in which the mineralizing solutions find lodgment for their burden of mineral. This flatter dip may even produce a vein which is approximately horizontal or flat. In many districts in the United States layers of limestone or of other rocks, and in the Coeur d'Alene district of quartzite, have been mineralized in almost horizontal positions. Another [385—340] characteristic—

Q. I will ask you there to take up the question of walls, and compare the walls, if you do not object to my interruption.

A. Yes. The walls of a replacement vein are seldom well defined. That may arise from two causes; in the first place the walls of a vein fre-

(Testimony of Horace V. Winchell.)

quently mark a plane of movement, and if the rocks are moved upon each other, it is necessary that the walls should be somewhat regular in direction; but if the mineralization has been deposited through a soluble or crushed rock, without following planes of fracture and movement, then the walls are not developed, and the boundaries may be those of the commercial ore, rather than bounding planes like the walls of a fissure vein. These boundaries also may have sinuosities and windings; they may turn from this flatter dip, and the frequent irregularities in strikes and dips produce upon every plane of section very uneven and irregular contour, or line representing the boundaries of the vein. Frequently tongues of ore extend out into the hanging or the footwalls, or from the footwall portion of the vein into the country rock, making long loops and nests and ore chutes, sometimes separated or [386—341] removed to a distance of perhaps several hundred feet from the main strike of the vein. This is noticeably true in the camp of Bisbee where the copper ores have been deposited in a limestone formation, and the outline of the ore bodies is as irregular as can be imagined. [387—342]

Q. Now, will you discuss, if you please, before we take up this particular vein, also any difference in structure between the fissure and the replacement veins that you have classified arising from the difference of their origin?

A. I have already briefly referred to that in saying that the structure of fissure veins is in general

(Testimony of Horace V. Winchell.)

parallel so far as they have an internal structure to the walls, whereas the arrangement of the ore minerals in a replacement vein is extremely irregular and capricious, following the position of the more soluble grains and fragments of the rock before the mineralization was deposited. There is, therefore, seldom what is called a banding or parallel arrangement in a replacement vein. In this Coeur d'Alene district, if you will permit me to say a word about the general geology, the country rock consists of a series of sediments all at some time deposited in water and accumulated to an enormous thickness. These sediments consist of a number of series from below upward. They are extremely old geologically and have not been found to contain any fossils or remains of animal or vegetable life. The sediments at the lower portion are slates, a slate formation of great thickness deposited apparently in shallow waters, to which [388—343] the name Prichard slates have been given. That is the basal formation and the bottom of it is not disclosed in this camp. What originally lay underneath it, we do not know. Above the Prichard slates come various series of quartzite, the first being called the Burke quartzite, having a thickness of two thousand feet or more, and above that another quartzite called the Revett, and so on. In these sediments there have penetrated certain intrusive eruptive rocks, the most important being that of a granite or a monzonite. This granite resembles in many respects the granite found in larger areas farther east and southeast and may belong to that

(Testimony of Horace V. Winchell.)

general large mass of granite underlying a large portion of Idaho, and it has been brought to the surface by erosion over a considerable portion of Central Idaho and some portions of Montana. There have been other intrusive rocks which have come from below and filled cracks in the quartzites and slates making dykes. These dykes are not abundant or apparently of any considerable importance in considering the general origin of the ore nor in explaining structural features. In the particular district in question we have the Prichard slates and the Burke quartzite developed in these workings. The most [389—344] of the ore in the Coeur d'Alenes, the silver-lead ore, has been derived from veins which have as their country rock the Burke and the Revett quartzites.

Q. Now, Mr. Winchell, I will ask you, if you please, taking Exhibits 1 to 9 inclusive and the other exhibits as you will call for them and applying the principles that you have laid down, the facts that you have observed, the classification that you have made, please discuss the vein that is in the Senator Stewart Fraction and its boundaries, its general surroundings as with these scientific facts applied to them and use these exhibits as you may wish and in the order you wish, and when you call for the plan maps I will furnish you those in order. I will ask you to state it in your own way.

A. Within the boundaries of the Senator Stewart Fraction, Senator Stewart, Lazy Jean and Ontario claims we find one large vein, one replacement vein

(Testimony of Horace V. Winchell.)

I should say, and two or three smaller mineralized veins. The country has been very much shattered by earth movements. The vein has a comparatively flat dip. It has a dip, however, like that of replacement veins in general, and particularly where the country rocks have been much bent and moved [390—345] presents great irregularities in dip and strike, the vein here varying in dip from fifty or sixty degrees to the horizontal and even for short distances having reverse dips, coming down from its upper portion the vein will have a steep dip, flatten off, steepen, again flatten, go up over a little more and down. This is well illustrated in the stopes between some of these levels where the undulations of the vein are seen and where sometimes the little elevation produced by thrust forces amount to sufficient to rupture the vein and make a little fault or fracture right through the axis of the fold or wave in the vein. Because of this shattered condition of the rocks, it may probably be explained right here there is through the Coeur d'Alene district exposed at many points and developed and accentuated in the topography a fault of unusual magnitude and displacement known as the Osborne fault. There are many faults but the Osborne fault is a comparatively recent fault geologically although a very old fault in point of years, because it has been shown that the movement upon this fault downward the country upon the south side or hanging-wall side of the fault having moved relative to the country on the north side, has amounted [391—346] to more than a

(Testimony of Horace V. Winchell.)

mile in vertical displacement. If that movement had been extremely recent we should have a fault scarp or break there upon which the rocks on one side were a mile lower than the rocks upon the other side, and would have a very precipitous mountain range front running easterly and westerly approximately along the course of the south fork of the Coeur d'Alene river, whereas, as a matter of fact, we find the rocks upon the south side of this fault sometimes and frequently higher than the rocks upon the north, showing that the topography has been developed very largely regardless of this fault and certainly since its movement. Now, in moving this enormous block of country fifteen or twenty miles in length downward upon the hanging-wall of the Osborne fault every vein contained within that moving block of quartzite was subject to more or less bending and breaking because this block did not all move in one unbroken solid mass. It was crushed and more or less shattered and the veins themselves were bent around and sometimes broken to a distance of hundreds of feet away from this fault. Those conditions are well illustrated in the developments and disclosures in the Senator Stewart Fraction and the vicinity. The vein has [392—347] been moved and bent. The stopes illustrated upon Plaintiff's Exhibit 2 show how the vein has been curved around. That curving is not within the fault, it is in the country rock in place at a distance of from nothing to five hundred feet from the fault and it shows how the rocks were bent before they were actually ruptured

(Testimony of Horace V. Winchell.)

and it shows, further, upon more intimate examination, internal breaks of minor importance.

Keeping that condition of the ground in mind, I will describe from the surface downward various points at which the vein is disclosed and its characteristics. The uppermost elevation at which the Stewart vein is seen in this territory is just beneath the wash in the raise from the Apex drift which is called raise 4 east. The vein is here oxidized and iron stained and does not contain stoping ore. That reminds me that I should have said further in referring to the replacement veins that from the nature of the origin of such veins it will be understood that the bodies of merchantable ore are distributed somewhat irregularly throughout the veins, throughout the country which has been mineralized, and that the boundary of the vein is not the boundary of the merchantable ore bodies, but it is [393—348] that portion of the rock within which the miner is justified in looking for ore. The boundaries mark that portion. We have, therefore, in the Apex drift just the upper portion of the sulphide or unoxidized ore. Ore can be seen along the drift itself, both galena and carbonate ores. In the floor of the drift just west of the crosscut there is some ore, good ore, and in the southern end of the crosscut which has been run south from the Apex drift and encountered the old stopes, there is carbonate still to-day. This vein here is shown to have a thickness of perhaps thirty feet. The hanging-wall or hanging-wall boundary of the vein has not been developed. How much farther it

(Testimony of Horace V. Winchell.)

extends we do not know, but the drift at the eastern end of the Apex drift is still extending upon oxidized vein material. From this Apex drift connection is made through a raise into the stopes which have been made upon the vein below. These stopes lie above the old lower tunnel level to which I should like to refer in detail.

Q. In order that this may be used, I will ask the stenographer to mark it for identification as Plaintiff's Exhibit 10. It is the map on which is marked in the [394—349] lower right-hand corner "old lower Stewart Tunnel," and I will ask you, Mr. Winchell, if you have checked this map in reference to the other exhibits and know that the objects that it purports to show are correctly indicated on the map.

A. The workings upon this map correspond with the workings upon the plan map already introduced in evidence and proven, and the geology corresponds with my own notes and observations underground.

Mr. DINES.—I think your practice is, your Honor, after identification it must be offered before it can be referred to. I therefore offer Exhibit 10 in evidence and ask the stenographer to mark it.

The COURT.—It will be admitted if there is no objection.

The said map was thereupon marked Plaintiff's Exhibit No. 10, admitted.

A. Upon Plaintiff's Exhibit 10 there are two bands of red. The narrower and shortest band represents a vein which has been worked upon the old

(Testimony of Horace V. Winchell.)

lower tunnel level. I saw this vein and the ore in it in April, 1906. The nearest place in the ground upon this level to which the Stewart vein approaches the vein first referred to, [395—350] which is called No. 2, is about two hundred feet, a little less than two hundred feet. The Stewart vein is shown upon Plaintiff's Exhibit 10 in its extension from the eastern end of the level in a westerly and southwesterly direction for a distance of nearly seven hundred feet. We have here an illustration of the irregularity in outline and in size and the lack of parallelism between the boundaries at various points, which is characteristic of replacement veins. The widest portion of the vein upon this level represents a place where the vein is very flat and does not represent the actual thickness of the vein. The thickness of the vein at this wide portion which appears upon the map and in the ground to be about 180 feet in width is perhaps forty feet or thereabouts. The vein has within it different layers and lenses of merchantable ore. These have been stoped. They do not always lie parallel with each other, nor with the outline of the vein; they have been stoped upon this level in two portions at least. There is a wide stope which is represented in blue upon Plaintiff's Exhibit 1 which represents the widths of the sill floor stope at that point. The vein in drift 5 east also contained a layer of merchantable ore, and there [396—351] was stoped and not quite so flat. Here also was one of those little rolls or undulations in the vein. The dip of the vein upon this level so far as the ore is

(Testimony of Horace V. Winchell.)

concerned is actually reversed; in other words, coming up raise No. 3 east we come upward to the south and then down again to the level of the floor in drift 5 east. This is illustrated upon some of the sections.

The vein continues to the southwesterly as far as the level extends and has been stoped, as shown upon Plaintiff's Exhibit 2 above this level almost continuously. The eastern termination of the vein upon this level is at the Osborne fault, and it can be seen that the vein turns materially before it is cut off by this fault, before it lies upon the hanging-wall of the fault, there is a wide bend in the mineralization, the footwall boundary and the actual end of the vein, the top of the vein looking at it up and downward upon its dip is shown in the eastern portion of the level near survey points 2371 and 2549. The Osborne fault is clearly disclosed here with a strike of north 65 degrees west and dip of about 70 degrees. One of those little breaks which I said sometimes mark the summit of the fold is indicated by the slight jog upon the hanging-wall boundary [397—352] of this place. A little fault probably passes through this point. Possibly we have two faults, neither of great displacement, neither sufficient to offset the vein entirely, but converging here, because in the drift near station 853 we have a little fault whose course would take it across the vein in a north and south direction, and near station 2503 we have another little fault whose course would take it down in the same direction. In other words, there may be two little breaks at this point, and the hanging-wall

(Testimony of Horace V. Winchell.)

outline of the vein is represented as we believe it to be somewhat jagged there.

From the old tunnel level we may descend upon the vein along raise 218 east, passing the end of the 100 level, and reaching the 200 level at the bottom of this raise.

This raise is driven along the upper edge of the ore where it lies upon the Osborne fault. It does not follow the precise upper edge in every case because the outline of the ore is slightly irregular, but the ore can be seen following down this raise and passing through old stopes upon the southwest side of the raise and the Osborne fault itself can be seen upon the northeast side of the raise. About a third of the way down the raise there is [398—353] a little slice of ore upon the northeast side of the raise also. There is, however, continuous development of the structural conditions and we have there the upper edge of the ore in this ground for the 150 or 200 feet which represents the distance between the 200 level and the old tunnel level.

I should like to refer to the 100 level, if you please.

There is another raise which connects upon the vein the 200 level with the old tunnel level. This raise is indicated upon Plaintiff's Exhibit 2 in this position and it is called raise 223 west as indicated upon Plaintiff's Exhibit 1. That raise is open and shows continuous vein, mostly ore which is being worked or has been.

Q. I show you plan map marked 100 level, which I will ask to be identified as Plaintiff's Exhibit 11,

(Testimony of Horace V. Winchell.)

and ask you if you have checked that with reference to the same data which you used on the other exhibits and are able to say whether or not it correctly represents the lines and objects it purports to represent on its face. [399—354]

A. Yes, I have checked the workings, and I have placed the geology upon this Exhibit No. 11 to represent my observations and my ideas of the position of the vein upon this level.

Mr. DINES.—We offer Plaintiff's Exhibit No. 11 in evidence.

Plaintiff's Exhibit No. 11 admitted in evidence without objection.

WITNESS.—Plaintiff's Exhibit No. 11, representing the 100 foot level, shows a limited amount of development, and really that is only an intermediate level. Raise 218 east which has already been referred to as connecting the old tunnel level with the 200 foot level, is shown at the eastern end of the vein where the Osborn fault is also shown in its proper place. The relation of the vein to the fault is seen upon this level, and we have illustrated here the bending of the veins in the hanging-wall quartzite at a distance of several hundred feet from the fault, before the fault is actually reached; in other words, if you should continue the vein in the strike which it has in its southwestern portion without bending it to the northeast from the fault, you would find it to be some 200 feet further [400—355] to the northwest than it actually is. The width of the vein on this level is not so irregular as upon old tunnel level.

(Testimony of Horace V. Winchell.)

Q. I show you the plan map of the 200 foot level, to be marked as Plaintiff's Exhibit No. 12, and ask you if you have checked the lines and the representations and the geology on this plan in the same way as you have on the former exhibit, and are able to say whether or not it is correct.

A. Yes, sir, I have.

Mr. DINES.—We offer in evidence Plaintiff's Exhibit No. 12.

Plaintiff's Exhibit No. 12 admitted in evidence without objection.

WITNESS.—Upon Plaintiff's Exhibit No. 12 we have a very small development and exposure of No. 2 vein. It is found in drift No. 202 east, and has no commercial importance. The Stewart vein is seen upon this level for a distance of eight or nine hundred feet, striking northeasterly, exhibiting no marked irregularities in width or in course, but showing again the curving or bending due to the flexing of the country rock southwest from the Osborn fault. The [401—356] Osborn fault is developed and shown near the bottom of raise No. 218, where the vein rests upon its hanging-wall. We have another fault of small displacement which is what is sometimes termed a scissors fault, which is a fault which in certain planes has a movement which appears to have increased as you go down. Upon this level the vein is barely displaced by this fault but upon the level below—it will be seen that there is apparently a considerable displacement of the vein by the No. 11 fault. The ore streak, that

(Testimony of Horace V. Winchell.)

portion of the vein which was mined for ore does exhibit an actual separation upon this level, but about thirty or thirty-five feet above the level the stopes pass continuously, without interruption, through the No. 11 fault, furnishing conclusive proof of the character of the displacement, and the fact that the vein is not severed by it on its upward course, but rather as depth is increased. The irregularity of the mineralization is illustrated upon this level; the outline of certain stopes has been placed upon the map in orange colored lines, and it can be seen that sometimes the ore bodies were extremely irregular and wide and then unmineralized where hard quartzite succeeds and occupies the vein material for a considerable distance. [402—357] That is a very common phenomenon in the Coeur d'Alene district and in this particular section.

Q. I show you a plan of the 300 foot level of the Stewart mine, and will have it marked as Plaintiff's Exhibit No. 13. Have you made a check upon this exhibit in reference to the placing of the geology upon the plans and the lines so as to enable you to say whether or not it correctly represents the lines and objects it purports to represent on its face?

A. I have.

Mr. DINES.—We offer Plaintiff's Exhibit No. 13 in evidence.

Plaintiff's Exhibit No. 13 admitted in evidence without objection.

WITNESS.—Plaintiff's Exhibit No. 13 represents the 300 foot level of the Stewart mine, and shows the

(Testimony of Horace V. Winchell.)

vein at a point where it is flat, and therefore wide, upon this level, and at a point where it is locally steepening its dip, and therefore narrow. It also illustrates the termination or eastern and upper edge of the vein against the Osborn fault as shown in the plans, and we have here the particular point of the crossing of the east end line of [403—358] the Senator Stewart Fraction claim by the uppermost edge of the vein. There is actually developed in the ground the point of the crossing of the eastern end line by the upper edge of the vein. Stopes extending to the southwesterly prove the vein to have an important development and to contain extremely valuable ore. We have also from this level a raise which is called raise 314 east, which goes up for a short distance upon the vein to its top and then follows the Osborn fault to the 200 foot level above, and then west along that level until the edge or top of the vein is again encountered there. We see in the southwestern part of these workings No. 11 fault near survey point 2118. The displacement upon this level appears to be and is about 180 feet horizontally; the precise point where No. 11 fault would appear to terminate the eastern leg of the vein is not developed upon the sill floor, but in the stopes which are being made from the Silver King tunnel level above the sill floor and slightly to the south of the face of this drift the fault is now developed and the ore terminates against it.

Q. I show you a plan map of the 400 foot level, to be identified as Plaintiff's Exhibit No. 14, and ask

(Testimony of Horace V. Winchell.)

you the same [404—359] question as to that as to the former exhibit, whether or not you have checked it sufficiently to enable you to say whether or not it is correct. A. I have.

Q. And is it correct? A. Yes, sir.

Mr. DINES.—We offer in evidence Plaintiff's Exhibit No. 14.

Plaintiff's Exhibit No. 14 admitted in evidence without objection.

WITNESS.—Plaintiff's Exhibit Number 14 represents the workings upon the sill floor upon the 400 or Fir tunnel level of the Stewart mine, together with the first floor stopes above this level, and the position of the vein upon the level. It also exhibits the Silver King tunnel, the Gray drift, the May drift and the Frank drift upon that level, and the vein disclosures in those workings. We have further the termination of the vein against the Osborn fault, and we have a very marked development of flat ore, upon which large stopes have been and are being made, making a very pronounced tongue, extending south-erly. The apparent width of the vein upon this level at its widest part is about [405—360] 220 feet, and the length of this tongue, if taken upon a slightly inclined plane, instead of approximately horizon-tally, would be still greater, because the ore goes into the floor of the level near the southern end of the workings marked "415 West." The vein also has a steeper portion which connects with the workings in the Gray drift, although there is no direct and imme-diate connection upon this level, the connection be-

(Testimony of Horace V. Winchell.)

ing made by means of up and downward workings into the 300 foot level of the Stewart, and then drifts further to the north. The number 11 fault is shown with a displacement upon this level somewhat less than upon the level above, namely about 100 feet between the Frank and the May, and then another little fault separating the May and the Gray. The vein upon this level is richly mineralized; the country rock over wide area contains disseminated mineralization, and the quartzite is very much shattered and crushed in all directions. The actual position of the upper edge of the vein upon this level where it rests upon the Osborn fault is somewhat east of the Senator Stewart Fraction end line. The country rock northeast of this Osborn fault, or north of it, upon this level is Pritchard slate, and the country rock within which the ore bodies are found to the [406—361] south of the Osborn fault is Burke's quartzite. We have in that alone an indication of considerable displacement which has taken place, and when we find the Pritchard slate as high as the 200 foot level, as we do, we have still further proof of the extent of that faulting movement. We have slate developed in the 209 crosscut north of the Osborn fault on this level, shown on Plaintiff's Exhibit No. 12.

I have now followed the Stewart vein continuously without interruption from the Apex drift, or rather from the wash above the Apex drift to the lowest development in this Silver King tunnel level. There is another little development of ore in this territory

(Testimony of Horace V. Winchell.)

upon what may be called the Samuels ore body. In the upper Stewart tunnel level ore was discovered and mined, and was being mined at the time of my first examination in April, 1906. This vein, unlike the vein called the No. 2 ore body in the old Stewart tunnel level, strikes northerly, whereas the vein known as the No. 2 vein strikes nearly east and west. We have again an illustration of the fact that the ground was bent around from a north and south direction to an east and west direction. The general structural features all indicate that the quartzite extending outward to the south for hundreds of feet from [407—362] the Osborne fault was bent in that way. The vein disclosed in the upper Stewart tunnel level is not open to careful study at the present time. A drift upon the 85 foot level discloses no ore, but a small fault fissure; whether or not the vein extends downward so far I am unable to state. There is no developed connection between this Samuels ore body and the No. 2, nor between the Samuels ore body or the Stewart vein. Their horizontal distance apart is nearly 300 feet, and whether or not there is any possible theoretical connection, I am unable to say. That leads me to mention what we call the Clancy fault; at the top of No. 7 raise we encounter this fault striking nearly north and south and dipping about 33 degrees to the westerly. Here we have tough black clay about four inches in thickness. The stopes upward from the old lower tunnel level terminate against this clay, this Clancy fault. We have, therefore, at that point an upward termina-

(Testimony of Horace V. Winchell.)

tion, not upon the surface, but at a depth of perhaps one hundred feet from the surface underneath the fault. This fault is again seen at the top of raise No. 2 west, and there the vein terminates against it on its upward course. Upon the upper side of this Clancy fault there is quartzite, and in the fault itself I find no indications as to the [408—363] direction of the movement, nor any drag ore. The Clancy fault, or what is believed to be the same, extends to the northward, lying approximately over the stopes above the old tunnel level, and is developed in the western end of the Apex drift, perhaps forty feet beneath the surface of the ground, or perhaps fifty feet at that point. There again the vein terminates in its upward course against the lower side of this little fault. That justifies us in drawing the apex or upper edge of that vein between the three points developed and along the top of those stopes, and gives us the approximate position of the upper edge of the vein in its western course. The upper edge of the vein in its eastern course has been developed, as already described, at the eastern end of the Apex drift in 218 raise in 314 east raise, just above the sill of the 300, upon the 300 level, and upon the Fir tunnel level. Those data are the facts upon which the apex has been drawn upon Plaintiff's Exhibit 3, and that is believed to represent approximately, and in fact very closely the position of the upper edge of this vein, which has a crescent shape beneath this apex, not amounting to so great a curve as this, but in part accounting for it. The structural relations, there-

(Testimony of Horace V. Winchell.)

fore, appear to me [409—364] that of a vein, a replacement vein, with uneven dip and irregular strike, with variations in thickness coursing through a quartzite country, striking northerly, northeasterly and nearly easterly, and finally getting around to strike almost southeasterly, terminated in its western portion beneath the Senator Stewart Fraction surface under the Clancy fault, and lying upon and terminated by the Osborn fault in its northern, north-eastern and eastern direction, dipping downward beneath the surface underneath the Lazy Jean and the Ontario claims.

Q. Projecting the easterly end line of the Senator Stewart Fraction claim, and projecting the vertical plane through that line as projected, and projecting a vertical plane through the point at which the foot-wall of the Senator Stewart Fraction vein crosses the southerly side line of that claim, please state whether or not the Ontario ore bodies in dispute here lie between those vertical planes so projected.

A. If you project the second plane which you mentioned also parallel to the east end line, they do.

Q. You spoke of drag ore. Please state what evidence of drag ore you find at the points where the Senator Stewart [410—365] vein, or what we know shortly as the Stewart vein, in its upward termination, lies against the face of the Osborn fault.

A. I saw no considerable amount of drag ore there. There is some finely disseminated galena in the clay marking the Osborn fault.

Q. What is drag ore?

(Testimony of Horace V. Winchell.)

A. Drag ore is ore which was originally within a vein, but is now included within a fault which has faulted that vein, and this drag lies between the faulted ends of the vein.

Q. And in what position with reference to the fault will you find the drag ore?

A. It lies within the fault, not in the country rock outside of it.

Q. What is the appearance of the ore as the Stewart vein on its upward termination at the points you have described in the Senator Stewart Fraction claim lies against the Osborn fault?

A. It is not always the same in appearance; sometimes the merchantable ore does not extend directly to the fault, but the vein itself is somewhat broken and crushed and has [411—366] been developed in many places directly to the point of intersection, and we have an abrupt transition from the vein to the material of the fault.